DOCUMENT RESUME

ED 105 621 95 EA 007 051

AUTHOR	Gall, Joyce P.; And Others
TITLE	Analyzing Problems: Training Unit 2.
INSTITUTION	Far West Lab. for Educational Research and Development, San Francisco, Calif.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	71
NOTE	248p.; Related documents are EA 007 049-052; Portions may reproduce poorly
EDRS PRICE	MF-$0.76 HC-$12.05 PLUS POSTAGE
DESCRIPTORS	Communication (Thought Transfer); Cost Effectiveness; *Decision Making; Educational Objectives; *Educational Problems; Elementary Secondary Education; Evaluation; Evaluation Methods; Evaluative Thinking; *Inservice Education; Instructional Programs; *Planning; *Problem Solving; Program Evaluation; Simulation; Team Training; Training Objectives
IDENTIFIERS	*Determining Instructional Purposes Program

ABSTRACT

Numerous problems face the nation's schools. These problems differ widely in their content, in their scope, in the types of people to whom they are important, and in the intensity with which people complain about them. Many schools try to pinpoint the causes of these problems and to look for solutions before the problems themselves are well understood. How can instructional planners rationally determine which of the many problems they face deserve their attention? This training unit presents a systematic approach to the process of analyzing instructional problems. It will take you through a series of steps or decision points by which you can analyze problems. Each step is the subject of one of the six modules in the training unit: Which problem signals warrant further analysis? What problems do the signals imply? What additional information is needed? How should the information be collected? Are the problems valid? If they are valid, how serious are the problems? (Author)

ED105621

Training Unit 2

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Analyzing Problems

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Produced By

FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

1855 Folsom St., San Francisco, California 94103

Interim Release Form, 1972

EA 007 051

1971

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INTRODUCTION TO ANALYZING PROBLEMS

Overview

This Introduction will orient you to the process of Analyzing Problems as it is dealt with in this training unit and to some of the benefits that schools may receive from performing it. It will also describe how the training will be conducted, and will tell you about the simulated school district for which you will act as an instructional planner during the training. When you finish reading the Introduction you should be able to:

1. Specify the steps involved in analyzing problems, that is, the major decisions which should be made concerning problems prior to considering solutions to them.

2. From a list of possible benefits to the schools, select those that are highly likely to result from the process of analyzing problems.

I. The Process of Analyzing Problems

Numerous problems face the nation's schools today. These problems differ widely in their content, in their scope, in the types of people to whom they are important, and in the intensity with which people complain about them. Some of them may be extremely serious concerns which will result in great setbacks in the educational opportunities that the schools provide children unless time and money are allocated for their solution. Other problems, even though the subject of frequent complaints, may not be as serious as some of those with which they compete for resources. And still other problems may not even be valid for some school districts, despite complaints. Regardless of the perplexity which such a profusion of problems creates, many schools try to pinpoint causes of these problems and look for solutions to them before the problems themselves are well understood. How can instructional planners rationally determine which of the many problems that they face most deserve their attention?

This training unit presents a systematic approach to the process of analyzing instructional problems. It will take you through a series of steps or decision points by which you can analyze problems presented during training as well as problems in your own school situation. Each step is the subject of one of the six modules in the training unit:

1. Which problem signals warrant further analysis?
   Incoming information which "signals" the existence of various student outcome problems is reviewed to determine the relationship between signals and to decide which groups of related signals warrant analysis.

2. What problems do the signals imply?
   The problems implied by the signals are defined in terms of the existing and desired student outcomes involved.

3. What additional information is needed?
   The adequacy of the information contained in the problem signals is evaluated, and additional information needs are determined.

4. How should the information be collected?
   Information plans are developed that specify the sources of information and the methods that will be used to collect the additional information as cost-effectively as possible.

5. Are the problems valid?
   Based upon the additional information received, the problems are reviewed to determine whether valid discrepancies exist between the existing and desired states of student outcome, and to redefine the problems as necessary.

6. If they are valid, how serious are the problems?
   Information concerning several criteria for evaluating the seriousness of problems is examined to determine how serious the problems are relative to one another.

During the training you will gain basic skills and knowledge related to each of these steps in the process of analyzing problems. The training includes reading assignments and individual exercises, training activities that you will perform in teams, and feedback exercises to help you evaluate your performance on the training activities.

II. How Analyzing Problems Can Help the Schools

Systematically analyzing the problems that schools encounter is naturally more time consuming than using one's subjective judgment to decide whether to deal with them, but it results in a number of benefits for the schools:

Assurance that analysis of specific problems is warranted. Instructional planners cannot possibly act on every complaint about existing conditions and every suggestion for change. Yet their reluctance to disregard complaints or suggestions without good reason is understandable. Analyzing problems provides a basis for evaluating such "signals" about problems to determine whether they warrant attention, so that school people can justify their decisions to investigate some and not others. Problem analysis is not intended to resolve present "crises" in which schools are involved. Rather, it is a long-range and never-ending planning technique which suggests steps which school decision makers can take to become aware of and deal with major instructional problems before they reach the "crisis" stage.

Consideration of implications for student outcome. The public's increasing demands for accountability in education point to the schools' responsibility for relating the costs and efforts that go into education to the outcomes of that education. The ultimate outcomes of education are, of course, what students learn. Problem analysis helps school people define their problems so that the implications for student outcome are clearly specified. This means that the priorities set for dealing with problems will correspond to those student outcomes which are most in need of improvement.

Informed decision making. Often the information that comes to instructional planners about alleged problems is quite sketchy, and making decisions about those problems consequently involves a good deal of guesswork. Problem analysis ensures that those responsible have a sufficient information base from which to decide whether to take action on certain problems. And if the problems have been clearly defined and analyzed, deciding among alternative solutions is greatly simplified.

Assurance that action is taken only on valid problems. Some of the problems that are called to the attention of instructional planners may be recognized as serious nationwide or statewide problems, but may not necessarily apply to the students who attend their schools. Time and money could be wasted choosing and implementing solutions to such problems. Problem analysis enables schools to validate alleged problems in order to avoid taking wasteful action in response to complaints that are not valid for their own students.

Assurance that the most serious problems are acted on first. Problems that exist in the schools compete with one another for resources. Unfortunately, there is never enough staff time nor money to implement solutions to all the schools' problems. School planners must always decide which of a wide range of problems to deal with first. In order to prevent the assigning of arbitrary or biased priorities, school decision makers should analyze problems to assess the relative seriousness of problems that are competing for resources. This ensures that the schools will deal with serious problems before dealing with minor problems.

Derivation of instructional goals and objectives. There is a growing concern that schools be accountable for the achievement of their goals and objectives for student performance. This concern also implies that schools should be accountable for their selection of goals and objectives, and for the priorities that they assign among them. Analyzing problems provides school planners with a basis from which to derive appropriate goals and objectives for their instructional program, and to assign priorities to them on the basis of their relevance to serious problems in the district.

Communication about the schools' commitment to deal with their problems. The determination by school decision makers that certain problems are valid for their schools and setting priorities among them to their own satisfaction are not sufficient. These decisions and the bases for them must be communicated to school-related groups in the community. By analyzing problems as a basis for setting priorities, school planners can communicate why they are attempting to deal with certain problems and not with others and what aspects of the instructional program are most in need of change.

As you proceed through this training course, you will have an opportunity to learn more about, and to apply, the steps of analyzing problems. Once you have a clear idea what the process involves and what benefits it can offer schools, you may recognize the desirability of carefully analyzing problems as one basis for determining the instructional purposes of your schools.

III. The Simulation for the Training Unit on Analyzing Problems

During this training unit, you will be participating in a simulated school district's efforts to analyze several major instructional problems. The Mid City Unified School District (MCUSD) simulation is used to provide a common background so that people from different school settings have a common working base. You will be working with a large number of simulated memoranda, reports, news clippings, and other documents similar to those typically dealt with by school planners and administrators. The purpose of this training unit is to teach some basic skills involved in analyzing problems which you can practice during the training and then apply to the real-life situations you encounter on your job. The simulation is used mainly as a vehicle for conveying and practicing these skills.

The Instructional Planning Team

For the purpose of the activities in this training unit, each of you is to assume the role of a member of the newly created Instructional Planning Team (IPT) for the Mid City Unified School District. The IPT is composed of representatives from several school-related groups, including central office personnel, local building administrators, supervising teachers, department chairmen, support personnel, and some student and community representatives. Each of you was recommended for appointment to the IPT by Dr. Redford, the District Superintendent. Dr. Redford and the School Board have stated publicly that they have high hopes that the Team will accomplish a comprehensive study and eventual renewal of the instructional program at MCUSD. He has outlined your new duties as follows:

1. To provide leadership for the improvement of the instructional program by engaging members of the instructional staff in long-range planning.

2. To assist the instructional staff in analyzing the existing program, in defining goals and objectives, and in designing new programs and evaluation techniques.

3. To provide leadership and initiate programs for maintaining and improving the instructional skills of the staff.

To prepare you for these new duties, Dr. Redford has arranged for a course to be conducted at MCUSD for the IPT, using self-contained training units on various aspects of instructional planning. During this particular training unit the skills you will be learning and practicing as a member of the MCUSD IPT all concern Analyzing Problems.

Your team obligations during training will include reading assignments, completion of some written work, and attendance at all meetings that have been scheduled.

Shortly before the IPT's first training session, Dr. Redford met with the Team and discussed his reasons for requesting that you participate in the training on Analyzing Problems:

> "MCUSD has become increasingly concerned with accountability, that is, trying to explain to the taxpayers the reasoning behind particular educational decisions, and to produce evidence that the schools are doing a satisfactory job of turning out educated and responsible students. It seems to me that the failure of last year's school bond issue in Mid City was partly due to sentiment among the voters that MCUSD was not doing enough to solve some of the educational problems they feel are important. Of course, no two groups ever seem to agree on which problems those are! Some groups claimed we failed to explain fully how we intended to use the money which would have been provided from the sale of school bonds. We do need to communicate better with the groups concerned with our schools, and to bring them into our planning.
>
> "Please don't get the idea I'm asking you to start from scratch, though. We have been trying to be responsive to community needs and to bring concerned groups and individuals more into our planning. Several of the Central Office staff have been keeping a file of information that's come to our attention concerning some of the problems we need to deal with. Please think in terms of how the planning team can analyze these problems and how the team can communicate its work to the schools and to the local groups concerned. The Instructional Planning Team is one of the efforts I am really hopeful will produce the kind of planning and, hopefully, communication of our intentions, that is needed."

The Community

- Mid City is located in Bay County, approximately 25 miles from a major city.
- Total population is 95,000. Two junior colleges and a four-year state college are located nearby.
- Much of the tax base to provide services and goods for the city and the school district comes from the property owners. Although there is some industry, including a heavy-equipment production factory, and an automobile assembly plant, the tax rate is high. Bond failures have indicated an increased resistance of tax payers to higher expenditures.
- Residential areas range from very expensive homes (inhabited primarily by whites) to very inexpensive homes (inhabited primarily by Blacks).

The Schools of Mid City

- Approximately 19,000 students attend the schools of the district: K-6, 10,200; 7-8, 3,200; and 9-12, 5,500.

- There are eighteen elementary schools; five 7-8 grade schools (one middle-school pilot project includes grades 6-8); and three high schoo

- The district's school population has mixed ethnic origins: 61% Caucasian, 29% Black, 6% Mexican-American, 4% Oriental. In three elementary schools over 50% of the population is Black. The high schools' racial balance is essentially similar to the total ethnic population ratio.

The School Staff

- The Administrative Cabinet consists of Superintendent Redford, two assistant superintendents for Business and for Instruction, elementary and secondary curriculum coordinators, and a director of Research and Guidance.

- The Central Office Staff also includes four school psychologists, four school nurses, three speech therapists, and two coordinators of special education programs.

- There are approximately 750 certified teachers in the district.

- All K-6 schools have a full-time principal; the 7-8 grade schools have a principal and a part-time vice principal. Secondary schools have a principal, a vice-principal, deans, counselors, and department chairmen who participate in planning the educational program.

- The Board consists of five elected members, all of whom have at least two years to serve in their present term of office. They have generally supported administration requests for new programs. However, due to the increase in costs and in the numbers of people and community groups resisting tax increases, they are becoming more cost-minded. They want to see a program planning and budgeting system (PPBS) implemented in the district and are prodding district staff to provide information about the cost effectiveness of programs. During the past two years, several new educational issues have aroused community interest. As a result, special interest groups have formed and community attendance at Board meetings has increased. District staff and Board are aware of community polarization occurring over educational practices.

- The teachers' associations have become more active and militant in demands for higher salaries, more benefits, and more voice in decision making about the instructional program. The NEA-affiliated organization has the power but the rival AFT organization is growing. The administration generally supports the teachers' association over matters of instruction but has remained noncommittal over salaries and benefits.

The Instructional Program

- Most elementary schools and classes would be considered traditional, with self-contained classrooms, one teacher responsible for all subject matter for students, time block scheduling of 55-minute periods, predominant use of state-adopted texts, ability and achievement grouping practiced in most classes, most learning activities centered around reading materials.

- There are isolated instances of various innovations in elementary programs, including experimentation with team teaching, regrouping of students into multi-grade units for instruction, programmed learning materials, the use of ITA reading materials, etc. Limited district office help or encouragement is available for innovative efforts.

- The junior high school program is organized around subject area departments and is heavily academically oriented. One exception is the middle school pilot project at Central School where a group of students is assigned to a team of six teachers, there are few set time periods, more interest and skill groupings, more activity-oriented learning, and considerable student involvement in planning.

- The high school program is predominately college preparatory--about 50% (slightly higher than state average) of the students go on to either two- or four-year colleges. There is a moderate selection of electives, and an after-school program of special interest activities. There are some vocational educational offerings, including woodshop, metal shops, auto mechanics, and a variety of business courses in typing, shorthand, office machines and accounting. There is no work-training program.

- Each high school has seven counselors and two guidance clerks employed to assist students with educational plans and with school-related problems.

The District's Financial Status

- Median salaries: elementary teachers, $8,800; secondary teachers, $9,800. The salary schedule is slightly below the state average.

- Typically, the budget is rather tight. The Board does not wish to ask for increased taxes, having seen the lack of voter support for such increases in neighboring districts. However, the Board has agreed to commit $35,000 from undistributed reserves to finance new programs or major revisions of existing programs.

Self-Test for Introduction

This self-test is to help you ensure that you are adequately oriented to the process of analyzing problems before you proceed with the training.

Feel free to refer back to the reading as you complete the self-test, if you need to. When you have completed all the items, review the suggested responses beginning on page 13.

1. The six major steps or decision points in the process of analyzing problems are listed below, although not necessarily in the order in which they should be performed. Below them are descriptions of what occurs at each of the six steps. Match each description with the decision point in the space next to each description.

   a. How should the information be collected?

   b. Which of the problem signals warrant further analysis?

   c. If they are valid, how serious are the problems?

   d. What problems do the signals imply?

   e. What additional information is needed?

   f. Are the problems valid?

_____ Incoming information that "signals" the existence of various student outcome problems is reviewed to determine the relationship between signals, and which groups of related signals warrant further analysis.

_____ Information plans are developed to specify the sources of information and the methods that will be used to collect the additional information as cost effectively as possible.

_____ The adequacy of the information contained in the problem signals is evaluated, and additional information needs are determined.

_____ The relative importance of several criteria for evaluating the seriousness of problems is examined, and the information available about all these criteria is reviewed to determine how serious the problems are relative to one another.

_____ The problems implied by the signals are defined in terms of the existing and desired states of student outcome.

_____ The information available about the problems is reviewed to determine whether valid discrepancies exist between the existing and desired states of student outcome as they were initially defined and to redefine valid problems based on the new information available about them.

2. Indicate the order in which the six decision points of analyzing problems will be presented in the training (and the logical, but not necessarily the only, order in which they should occur in real life) by numbering them from 1 to 6 in the spaces provided below.

_____ How should the information be collected?

_____ Which of the problem signals warrant further analysis?

_____ If they are valid, how serious are the problems?

_____ What problems do the signals imply?

_____ What additional information is needed?

_____ Are the problems valid?

3. Below is a list of potential benefits to a school, half of which are highly likely to result from analyzing problems as a means of planning the instructional program. Check the seven statements that are highly likely to be benefits a school would receive just as a result of analyzing problems.

_____ a. The school could ensure that the problems it deals with are really serious problems.

_____ b. The school could define its problems so that the implications for student outcome are clear.

_____ c. The school would have the information it needs to understand its instructional problems better.

_____ d. The school could communicate what aspects of the instructional program need change.

_____ e. The school would know what causes particular student outcome problems.

_____ f. The school could select and evaluate staff in terms of their performance.

_____ g. The school could ensure that it would take action only on those problems which are actually valid for that school.

_____ h. The school could communicate why it is attempting to deal with certain problems and not with others.

_____ i. The school could determine how to organize its staff to deal with particular instructional problems.

_____ j. The school could determine what solution should be adopted for a particular problem.

_____ k. The school could determine how to give students maximal involvement in solving instructional problems.

_____ l. The school could determine how costly it would be to solve a particular problem.

_____ m. The school could deal effectively with specific incidents of student behavior problems.

_____ n. The school could relate problems in other aspects of the school's operation to student outcome problems.

_____ o. The school would have a basis from which to derive goals and objectives that are appropriate for its instructional program.

Suggested Responses,

Self-Test for Introduction

Please do not refer to the Suggested Responses until you have attempted all the items on the Self-Test.

1. The six major steps or decision points in the process of analyzing problems are listed below, although not necessarily in the order in which they should be performed. Below them are descriptions of what occurs at each of the six steps. Match each description with the decision point in the space next to each description.

   a. How should the information be collected?

   b. Which of the problem signals warrant further analysis?

   c. If they are valid, how serious are the problems?

   d. What problems do the signals imply?

   e. What additional information is needed?

   f. Are the problems valid?

   b Incoming information that "signals" the existence of various student outcome problems is reviewed to determine the relationship between signals, and which groups of related signals warrant further analysis.

   a Information plans are developed to specify the sources of information and the methods that will be used to collect the additional information as cost effectively as possible.

   e The adequacy of the information contained in the problem signals is evaluated, and additional information needs are determined.

   c The relative importance of several criteria for evaluating the seriousness of problems is examined, and the information available about all these criteria is reviewed to determine how serious the problems are relative to one another.

   d The problems implied by the signals are defined in terms of the existing and desired states of student outcome.

   f The information available about the problems is reviewed to determine whether valid discrepancies exist between the existing and desired states of student outcome as they were initially defined and to redefine valid problems based on the new information available about them.

2. Indicate the order in which the six decision points of analyzing problems will be presented in the training (and the logical, but not necessarily the only, order in which they should occur in real life) by numbering them from 1 to 6 in the spaces provided below.

4 How should the information be collected?

1 Which of the problem signals warrant further analysis?

6 If they are valid, how serious are the problems?

2 What problems do the signals imply?

3 What additional information is needed?

5 Are the problems valid?

3. Below is a list of potential benefits to a school, half of which are highly likely to result from analyzing problems as a means of planning the instructional program. Check the seven statements that are highly likely to be benefits a school would receive just as a result of analyzing problems.

✓ a. The school could ensure that the problems it deals with are really serious problems.

✓ b. The school could define its problems so that the implications for student outcome are clear.

✓ c. The school would have the information it needs to understand its instructional problems better.

✓ d. The school could communicate what aspects of the instructional program need change.

____ e. The school would know what causes particular student outcome problems.

____ f. The school could select and evaluate staff in terms of their performance.

✓ g. The school could ensure that it would take action only on those problems which are actually valid for that school.

✓ h. The school could communicate why it is attempting to deal with certain problems and not with others.

____ i. The school could determine how to organize its staff to deal with particular instructional problems.

____ j. The school could determine what solution should be adopted for a particular problem.

____ k. The school could determine how to give students maximal involvement in solving instructional problems.

____ l. The school could determine how costly it would be to solve a particular problem.

____ m. The school could deal effectively with specific incidents of student behavior problems.

____ n. The school could relate problems in other aspects of the school's operation to student outcome problems.

✓ o. The school would have a basis from which to derive goals and objectives that are appropriate for its instructional program.

Module One

WHICH OF THE PROBLEM SIGNALS WARRANT FURTHER ANALYSIS?

Overview

Module One will introduce you to the concept of problem signals which alert instructional planners to the existence of problems. You will learn how to recognize problem signals and how to organize them so that the major problems being signalled become apparent. You will be given four criteria by which to evaluate whether signals warrant a thorough examination. Then, together with the members of your Instructional Planning Team, you will review a number of simulated problem signals, classify them into categories, and decide which categories require systematic analysis.

When you have completed Module One you should be able to:

1. Discriminate problem signals that clearly specify student outcomes from signals of other school concerns.

2. Give at least one reason why classification, and at least one reason why evaluation, of problem signals helps instructional planners to deal with the complaints, suggestions and criticisms that constantly come to their attention.

3. Classify a number of problem signals into categories that signal common problems.

4. Identify criteria that are useful for determining whether problem signals warrant further analysis.

5. Judge whether categories of problem signals meet the criteria and, consequently, warrant further analysis.

I. What Constitutes a Problem Signal?

A problem signal is any message which indicates the existence of a problem. In this training unit you will work with problem signals that vary according to content, source, and form or method by which they are communicated. A problem signal may be formal or informal, simple or complicated, concerned with only one classroom or district, or related to the nation's entire school system. A signal may be a comment, conversation, report, or news article. A 500-page report on marijuana smoking among teen-age youth by a Presidential Commission on Drug Abuse; a group of secondary science teachers meeting to propose courses on the psychological, historical, and chemical aspects of marijuana to increase the relevance of their curriculum; or the local police chief stating in a news interview that increasing numbers of students in the district are being arrested for use, possession, and sale of marijuana, are all examples of problem signals.

Many signals are communicated in written form, ranging from a hastily scrawled note between colleagues to the findings of a well-documented, long-term research study. Other signals result from telephone conversations, interviews, meetings, discussion groups, or informal gatherings. Signals often originate from sources outside the school context, as well as within it. Examples of external sources are community action groups, ad hoc committees, the Chamber of Commerce, congressmen, university faculty members, or professional associations and journals.

Since an instructional planner cannot have daily contact with all school-related groups and individuals, many problem signals come to him indirectly through personnel of individual school sites. Adequate communication among district personnel is then a critical factor in analyzing problems, since it affects the accuracy of information received from both within and without the school system.

II. Classifying Problem Signals

Problem signals should be classified or organized to help you discriminate among recurrent complaints or suggestions and isolated criticisms. Signals may be recorded verbatim, or summarized. Classifying is a difficult task because, in a sense, every problem may be ultimately related to everything else in the school context. To lump all problem signals together, however, would not help define existing problems, nor would it give direction to further analysis and solution.

The classification of problem signals into categories requires an initial decision about the nature and extent of the signalled problems. Classification is the organization of problem signals that may be related to each other in any of a number of ways. This organization provides initial, tentative specifications of the problems that have been signalled.

Consider the following problem signals:

1. A parent complains about outmoded teaching methods and materials being used in her seventh-grade son's reading program.

2. A group of local law enforcement officials states that students are not being informed about the dangers of drug use by their schools.

3. A high school counselor says that students are receiving inadequate guidance about such matters as dating, morality, marital planning, illegitimate pregnancies, and venereal diseases.

4. A meeting of Lowell High School teachers discusses the need to involve teachers more meaningfully in decisions concerning a newly implemented counselling program for drug users at the school.

5. The assistant director of the City Health Department states that the use of tobacco, alcohol, and other drugs is widespread among secondary level students.

6. The incidence of illegitimate births, VD, forced marriages, and divorce among young people has been rising rapidly over the past five years, according to an article in the local newspaper.

7. Newly released results of district-wide standardized reading achievement tests show that many of the district's secondary students are reading two to four years below grade level.

8. High school counselors reported to the School Board that they feel insufficiently informed about the nature and effects of various drugs to provide proper guidance and counselling to students with drug problems.

9. A spokesman for a parents' group says at a School Board meeting that the schools must assume the responsibility for the transmission of accurate information about human reproduction and sexual behavior to young people because other groups are failing to do so.

Probably the best single basis for classification of these problem signals is to ask: "What aspects of school operation or areas of student outcome do the signals concern?" The nine signals above refer to three areas of student outcome that serve as useful categories for classifying them:

1. Reading (signals 1 and 7).

2. Education and guidance concerning drug abuse (signals 2, 4, 5, and 8).

3. Student knowledge and behavior in the area of sex and family life (signals 3, 6, and 9).

Alternatively, in some situations you might classify the problem signals according to such factors as the particular groups of students, or grade levels, to which the signals refer.

III. Determining Which Problem Signals Warrant Further Analysis

Since the number of problem signals confronting any school district invariably surpasses the available resources for their analysis and solution, it becomes necessary to establish priorities among the problems identified. Not all the problem signals you receive require further analysis. Signals should be carefully evaluated to determine whether undertaking time-consuming and expensive analysis of them is the most prudent course of action. Through careful review, you can select those problem signals which refer to general, continuing concerns of the district's or school's instructional program.

Proper classification of problem signals allows you to distribute the signals among several problem categories, which will undoubtedly vary in scope. One of your categories might be broad and ambiguous, such as a large number of signals having in common only their references to "the irrelevance of education." While this category does not provide enough specific information for complete analysis as it stands, you may decide that the sheer volume of signals makes it a proper focus for further analysis, although it must be more precisely specified in the process. Another problem category may be narrow and specific, consisting of a number of signals received over a long period of time, such as a dozen incidents of fighting at certain high schools. If you undertook analysis of this category of signals, your analysis would have to discover what is the more general problem to which these specific signals are related.

It is clear that a crucial decision point is reached after problem signals have been classified: how to decide which problem signals should be analyzed. Decisions as to whether problem signals warrant further analysis should be made in regard to each group of signals that have been classified together, unless there is only a single problem signal in a category. Four criteria that can be used to determine whether a set of related problem signals warrants further analysis are:

1. DO THE SIGNALS REFER TO STUDENT OUTCOMES?

2. DO THE SIGNALS REFER TO LONG-RANGE PROBLEMS?

3. DO THE SIGNALS REFER TO DISTRICT-LEVEL PROBLEMS?

4. WERE THE SIGNALS COMMUNICATED BY SIGNIFICANT SOURCES AND/OR METHODS?

Each of these criteria is explained below, and then used to determine whether the three sets of problem signals on pages 18-19 warrant further analysis.

Do the Signals Refer to Student Outcomes?

As a school decision maker you may be concerned wtih many aspects of school operation: curriculum, budget, student services, staffing, etc. The schools' ultimate concern, however, is students and their achievement of desired outcomes. A student outcome is any student behavior, attitude, knowledge, skill, or state of being that might result from involvement in any aspect of the school program.

As an instructional planner, you may be inclined to focus on the intended effects of the instructional program, and whether they are being achieved. This does not exhaust the domain of "student outcomes," however. The formal program of instruction is certainly not the only aspect of schools which causes changes in student attitudes and behavior. Dances, athletic events, and the daily lunch period are not strictly part of the instructional program, but who can deny their impact upon student behavior? Similarly, not all student outcomes are intended or desired--for example, the behaviors that students display toward "unpopular" students or teachers.

By suggesting that you focus upon student outcomes when you analyze problems we do not mean to imply that every change in school operations needs to be justified in terms of its effect on student outcome. A new grade report form or expanded teacher training program may affect efficiency, teacher morale, or accounting costs, which are in themselves legitimate concerns of the school, and have no immediate or observable effect on achievement of desired student outcomes.

On the otherhand, by focussing on student outcomes you can put other school concerns (e.g., teacher morale) into the perspective of their possible effect on or relationship to student outcomes. Other school concerns must continually be examined as possible causes of, or potential solutions to, specific student outcome problems.

In some cases it is fairly simple to draw the line between problems involving student outcome and those involving other school concerns. As the signals become more complex or more general, judgments as to whether they actually refer to student outcomes become increasingly difficult. In this training, only those groups of signals that clearly do refer to student outcomes will be further analyzed following the initial classification and evaluation of problem signals.

Signal Categories (from pages 18-19):		Do the signals refer to student outcomes?		Does the category (i.e., at least one signal) meet this criterion?
Reading:	1	No	(methods, materials)	Yes
	7	Yes	(student reading levels)	
Drug Abuse:	2	Yes	(students being informed about the dangers of drug abuse)	
	4	No	(teacher involvement, counselling)	Yes
	5	Yes	(students' use of tobacco, alcohol, and other drugs)	
	8	No	(preparation of counselors, provision of guidance)	
Sex and Family Life:	3	Yes	(dating, morality, etc.)	
	6	Yes	(illegitimate births, VD)	
	9	No	(transmission of information about human reproduction and sexual behavior)	Yes

Do the Signals Refer to District-level Problems?

Over a period of time you will receive problem signals that refer to problems affecting a substantial proportion or all of the students in your district, as well as signals that refer to broad problems occurring statewide or nationwide, and signals of specific problems apparently involving only students in particular schools or classrooms in the district. Information which signals problems occurring on so broad a scale as statewide or nationwide should not be analyzed further unless you have also received information alleging that the same, or very similar, problems are occurring in your own district. You should avoid needlessly wasting district resources on in-depth analyses of problems that may not affect the students attending your schools. Also, when attempting to identify district-level problems you should rely on local building personnel to handle overly specific problems that happen to come to your attention, unless you have additional information that leads you to suspect that the problems are in fact occurring district-wide or require central office action.

Signal Categories:			Do the signals refer to district-level problems?	Does the category (i.e., at least one signal) meet this criterion?
Reading:	1	No	(one classroom)	Yes
	7	Yes	(district-wide test results)	
Drug Abuse:	2	Yes	(local schools in general, apparently)	
	4	No	(one high school)	
	5	Yes	(secondary students throughout the city)	Yes
	8	Yes	(School Board deals with district-level concerns)	
Sex and Family Life:	3	No	(one high school)	
	6	No	(could be nationwide or statewide)	Yes
	9	Yes	(the schools in general; report to School Board)	

Do the Signals Refer to Long-range Problems?

Some of the problem signals that you receive will indicate that the problems to which they refer have a long history and will probably continue year after year, maybe becoming even more serious, if not dealt with now. On the other hand, some signals will concern crisis situations that arise in response to specific current conditions, isolated incidents that are not characteristic of the district and may never recur, or problems for which the district has already selected solutions and which, therefore, may be expected to end or show improvement relatively soon. None of these three types of problem signals would satisfy the criterion of long-range impact on the district.

Signal Categories:			Do the signals refer to long-range problems?	Does the category (i.e., at least one signal) meet this criterion?
Reading:	1	Yes	(takes time to plan and implement an improved reading program)	
	7	Yes	(being 2-4 years below grade level means problem has built up over time and may take a long time to solve)	Yes
Drug Abuse:	2	Yes	(charge implies that, throughout their school career, students don't receive adequate information in this area)	
	4	Yes	(involvement in a major new program cannot be accomplished overnight)	Yes
	5	Yes	(widespread use of such drugs probably occurs some time after the problem starts)	
	8	Yes	(it takes time to increase competence of counselors to provide guidance)	
Sex and Family Life:	3	Yes	(inadequate guidance of students in general is a long-range concern)	Yes
	6	Yes	(...over the past five years...)	
	9	Yes	(major task of this sort would take time to plan and implement)	

Were the Signals Communicated by Significant Sources and/or Methods?

Many problem signals that you will receive, particularly those that come from single individuals and are informally communicated, cannot be considered especially significant by themselves. Problem signals can be considered significant enough to warrant further analysis if any of several different conditions are met:

The sheer volume of signals received can be considered a measure of significance. If a number of signals referring to the same problem have been received from single individuals or from small groups of people, the signals might be considered significant enough to warrant analysis.

A single problem signal that has been received from an organization of sizeable membership, or that at least represents the opinions of a sizeable number of people, would satisfy the criterion.

Sometimes a single problem signal received from one individual occupying a high-level educational decision-making position may be considered significant enough to warrant analysis. A single signal may also deserve consideration if it comes from a person with expertise in a particular field and who is expressing his or her expert opinions concerning an issue in that field.

A single problem signal will also satisfy this criterion if it represents an intensive, long-range study of a particular problem. In other words, problem signals such as the results of a formal opinion survey, district-wide results of standardized tests, or an entire book devoted to an examination of a particular education problem should be considered more significant than informal signals like correspondence, personal conversations, or comments made at a public meeting.

Signal Categories:			Were the signals communicated by significant sources and/or methods?	Does the category (i.e., at least one signal) meet this criterion?
Reading:	1	No	(single parent)	
	7	Yes	(district-wide, results of standardized tests)	Yes
Drug Abuse:	2	Yes	(group of law enforcement officials)	
	4	Yes	(teachers' meeting)	Yes
	5	Yes	(Health Department official)	
	8	Yes	(group of high school counselors)	
Sex and Family Life:	3	No	(single counselor)	
	6	Yes	(local newspaper)	Yes
	9	Yes	(spokesman for parents' group)	

If sets of problem signals meet all four of the criteria discussed, a thorough problem analysis is warranted. However some alternative means of handling a group of problem signals may be appropriate if the signals fail to meet one or more of the criteria. Instead of undertaking further analysis of the signals, you may decide to table the signals temporarily in case similar signals are received in the future which, combined with the initial signals, do warrant further analysis; forward the signals to local building personnel if it appears more appropriate that the problems being signalled be handled at that level; or informally seek some additional information that will enable you to determine whether an intensive analysis of the problem is called for even though the signals received so far do not meet all the criteria for warranting further analysis.

Module One Self-Test

This self-test is to help you assess your understanding of major concepts presented in Module One regarding classification and evaluation of problem signals. Feel free to refer to the reading as you complete the self-test. Suggested responses begin on page 33.

1a. Give one reason why classification of problem signals is useful.

_____

_____

_____

_____

1b. Give one reason why it is necessary to be selective in deciding what groups of problem signals warrant further analysis.

_____

_____

_____

_____

2. Check the four items in the following list that are most useful as criteria for screening out groups of problem signals that do not warrant further analysis by instructional planners:

_____ a. Do all the signals come from the same, or very similar sources?

_____ b. Do any of the signals refer to student outcomes?

_____ c. Were all the signals communicated by the same, or very similar methods?

_____ d. Do any of the signals refer to long-range problems?

_____ e. Were any of the signals communicated by significant sources and/or methods?

_____ f. Are all the signals valid?

_____ g. Do any of the signals refer to district-level problems?

_____ h. Do the signals directly state a problem or only imply one?

3. Various problem signals are listed below. Half of them are signals of student outcomes of a school program, whereas the others primarily signal school concerns other than student outcomes. Decide whether each item signals a student outcome or another school concern, and check the appropriate line opposite each item.

	Student Outcome	Other School Concerns
a. Only 61% of the student body has participated in the last 4 student body elections.	_____	_____
b. The State Department of Education has created a drug education teacher training program.	_____	_____
c. Teachers have complained about noise and disorder in classrooms.	_____	_____
d. Students have requested more courses centered around independent learning.	_____	_____
e. A parent group believes the grade reporting system is unrealistic.	_____	_____
f. The teachers' associations feel that communication channels among staff are inadequate.	_____	_____
g. There is not adequate time for parent-teacher conferences according to a parent group.	_____	_____
h. A group of parents have alleged cultural bias in standardized achievement tests.	_____	_____
i. There has been a sharp rise in illegitimate pregnancies among high school girls.	_____	_____
j. Teachers want higher salaries.	_____	_____
k. A civic group urges greater student awareness of basic ecological principles.	_____	_____
l. A petition from students requests more intramural athletic activities.	_____	_____
m. The use of auxiliary teacher aids has been reduced.	_____	_____
n. Some teachers and parents want a stricter code specifying proper student attire.	_____	_____

4. Read the examples of problem signals in the list below. Then answer the four questions that follow by writing the letters of the appropriate signals in the spaces provided at the end of each question.

   a. In a recent public address, the State Superintendent of Schools urged the staffs of all public schools in the state to plan for whatever steps are necessary to enable our schools to make better "problem solvers" of our students.

   b. A central office staff member has informally commented that the district must initiate planning for desperately needed additional facilities.

   c. The National Institute of Health has issued a bulletin recommending that the nation's schools should insure that students are given an understanding of the relationship of diet, exercise, and physical hygiene to good health, by scheduling at least 10 hours of health instruction each year for students in grades K-6, and at least 20 hours for students in grades 7-12.

   d. A parent of a student enrolled at Queen's High School has complained that her son's driver education instructor, Mr. McQuillan, has been teaching her son all about the mechanical operation of a car including what goes on under the hood, to the neglect of knowledge of the necessary rules of driving safety and courtesy.

   e. At a negotiation session between leaders of the local American Federation of Teachers and the district's administrative council, the president of the AFT specified the minimal pay increases and reductions in class size that would be acceptable to the AFT membership and announced that, unless the district agreed to meet these demands, the AFT would go on strike at the beginning of the following week.

   f. A new member of the social studies teaching staff at Wilson High School has been complaining to his department chairman that Wilson is graduating students who know nothing about our system of government.

   (1) Which signals refer to student outcomes?_____

   _____

   (2) Which signals refer to district-level problems?_____

   _____

   (3) Which signals refer to long-range problems?_____

   _____

   (4) Which signals were communicated by significant sources and/or methods?

   _____

5. Below and on the next page are 12 problem signals that pertain to three different student outcome problems.

   a. Read the list of signals and decide what are the three general categories into which they should be classified. Write an appropriate name for each category in the spaces provided.

   b. Decide in which category each problem signal belongs and write the number of each signal below the appropriate category.

   c. Then decide whether each set of problem signals meets each of the four criteria and therefore warrants further analysis. (Mark "yes" or "no" for each question.)

      (1) Several family planning organizations and birth control information centers have written the superintendent of schools to offer their aid to the District.

      (2) Theoretical and practical aspects of computer operations need to become part of our high school curriculum, according to the Assistant Superintendent for Instruction.

      (3) More local businesses and unions need to be involved in our on-the-job training program.

      (4) A student committee has notified the principal that students want a course on the theme of Sex and Family Life Education that presents the varying contemporary interpretations and choices of action, from the strictly religious to the most uninhibited and hedonistic.

      (5) If the special interests, history and culture of many of the district's low-ability students were considered as proper content for their classes, higher achievement levels might be possible, according to a report just released by the Division of Research and Evaluation.

      (6) Students who perform poorly in school must not be segregated from the rest of the student population by assignment to a totally separate curriculum, as charged by a parent at last night's PTA meeting.

      (7) The chairman of the vocational education department has complained that typewriters and other office machines available in business skill classes are antiquated and need to be replaced by contemporary products so that this training is meaningful.

      (8) The traditional wood-shop and metal-shop offerings in the intermediate grade schools should be supplemented by courses in specific trades, such as plumbing, carpentry, telephone servicing, installation of electrical wiring, typewriter and business machine repair, and welding.

(9) Counselors throughout the District have expressed as a staff objective greater familiarity with current ideas regarding birth control, marriage, and the emotional problems of adolescence.

(10) Two local universities have offered the District student teachers to assist staff in providing tutoring to students with a history of low achievement.

(11) A counselor complained to one of the high schoool teachers that counselors are over-burdened with paper work and clerical responsibilities, to the detriment of one-to-one contact with students having problems related to dating, marriage goals, etc.

(12) The desirability and feasibility of an inservice teacher training program concerning the cultural and historical background of many of the District's low-ability students is being investigated by a committee of high school social studies teachers.

Problem Signal Category	CRITERIA Do any of the signals in this category: (1) refer to student outcomes?	(2) refer to district-level problems?	(3) refer to long-range problems?	(4) were communicated by significant sources and/or methods?	DECISION: Do the signals in this category warrant further analysis (i.e., meet all four criteria)?
1. _____ _____ Signals: _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____
2. _____ _____ Signals: _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____
3. _____ _____ Signals: _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____	Yes_____ No _____

Suggested Responses

for Module One Self-Test

Please do not look at the Suggested Responses until you have attempted all the items on the Self-Test.

1a. Give one reason why classification of problem signals is useful.

Some possible reasons:

- *It creates categories of problem signals comparable in scope or specificity.*
- *It organizes problem signals according to similarities in the aspects of school operation or area of student outcome to which they refer.*
- *It reduces the number of separate items concerning problems with which school decision makers must deal.*

1b. Give one reason why it is necessary to be selective in deciding what groups of problem signals warrant further analysis.

Some possible reasons:

- *Feasibility considerations, such as the availability of skilled staff, limit a district's ability to deal effectively with all signals.*
- *Those sets of signals that are of long-range and district-wide impact are the ones that a district's scarce resources should be allocated to analyzing.*
- *Financial resources are a constraint on how many problems that are signaled can be thoroughly analyzed.*

2. Check the four items in the following list that are most useful as criteria for screening out groups of problem signals that do not warrant further analysis by instructional planners:

_____ a. Do all the signals come from the same, or very similar sources?

__✓__ b. Do any of the signals refer to student outcomes?

_____ c. Were all the signals communicated by the same, or very similar methods?

__✓__ d. Do any of the signals refer to long-range problems?

__✓__ e. Were any of the signals communicated by significant sources and/or methods?

_____ f. Are all the signals valid?

__✓__ g. Do any of the signals refer to district-level problems?

_____ h. Do the signals directly state a problem or only imply one?

3. Various problem signals are listed below. Half of them are signals of student outcomes of a school program, whereas the others primarily signal school concerns other than student outcomes. Decide whether each item signals a student outcome or another school concern, and check the appropriate line opposite each item.

	Student Outcome	Other School Concerns
a. Only 61% of the student body has participated in the last 4 student body elections.	✓	
b. The State Department of Education has created a drug education teacher training program.		✓
c. Teachers have complained about noise and disorder in classrooms.	✓	
d. Students have requested more courses centered around independent learning.	✓	
e. A parent group believes the grade reporting system is unrealistic.		✓
f. The teachers' associations feel that communication channels among staff are inadequate.		✓
g. There is not adequate time for parent-teacher conferences according to a parent group.		✓
h. A group of parents have alleged cultural bias in standardized achievement tests.		✓
i. There has been a sharp rise in illegitimate pregnancies among high school girls.	✓	
j. Teachers want higher salaries.		✓
k. A civic group urges greater student awareness of basic ecological principles.	✓	
l. A petition from students requests more intramural athletic activities.	✓	
m. The use of auxiliary teacher aids has been reduced.		✓
n. Some teachers and parents want a stricter code specifying proper student attire.	✓	

4. Read the examples of problem signals in the list below. Then answer the four questions that follow by writing the letters of the appropriate signals in the spaces provided at the end of each question.

   a. In a recent public address, the State Superintendent of Schools urged the staffs of all public schools in the state to plan for whatever steps are necessary to enable our schools to make better "problem solvers" of our students.

   b. A central office staff member has informally commented that the district must initiate planning for desperately needed additional facilities.

   c. The National Institute of Health has issued a bulletin recommending that the nation's schools should insure that students are given an understanding of the relationship of diet, exercise, and physical hygiene to good health, by scheduling at least 10 hours of health instruction each year for students in grades K-6, and at least 20 hours for students in grades 7-12.

   d. A parent of a student enrolled at Queen's High School has complained that her son's driver education instructor, Mr. McQuillan, has been teaching her son all about the mechanical operation of a car including what goes on under the hood, to the neglect of knowledge of the necessary rules of driving safety and courtesy.

   e. At a negotiation session between leaders of the local American Federation of Teachers and the district's administrative council, the president of the AFT specified the minimal pay increases and reductions in class size that would be acceptable to the AFT membership and announced that, unless the district agreed to meet these demands, the AFT would go on strike at the beginning of the following week.

   f. A new member of the social studies teaching staff at Wilson High School has been complaining to his department chairman that Wilson is graduating students who know nothing about our system of government.

   (1) Which signals refer to student outcomes? *a, c, d, f*

   (2) Which signals refer to district-level problems? *b, c, e*

   (3) Which signals refer to long-range problems? *a, b, c, f*

   (4) Which signals were communicated by significant sources and/or methods?

   a, c, e

5. Below and on the next page are 12 problem signals that pertain to three different student outcome problems.

   a. Read the list of signals and decide what are the three general categories into which they should be classified. Write an appropriate name for each category in the spaces provided.

   b. Decide in which category each problem signal belongs and write the number of each signal below the appropriate category.

   c. Then decide whether each set of problem signals meets each of the four criteria and therefore warrants further analysis. (Mark "yes" or "no" for each question.)

      (1) Several family planning organizations and birth control information centers have written the superintendent of schools to offer their aid to the District.

      (2) Theoretical and practical aspects of computer operations need to become part of our high school curriculum, according to the Assistant Superintendent for Instruction.

      (3) More local businesses and unions need to be involved in our on-the-job training program.

      (4) A student committee has notified the principal that students want a course on the theme of Sex and Family Life Education that presents the varying contemporary interpretations and choices of action, from the strictly religious to the most uninhibited and hedonistic.

      (5) If the special interests, history and culture of many of the district's low-ability students were considered as proper content for their classes, higher achievement levels might be possible, according to a report just released by the Division of Research and Evaluation.

      (6) Students who perform poorly in school must not be segregated from the rest of the student population by assignment to a totally separate curriculum, as charged by a parent at last night's PTA meeting.

      (7) The chairman of the vocational education department has complained that typewriters and other office machines available in business skill classes are antiquated and need to be replaced by contemporary products so that this training is meaningful.

      (8) The traditional wood-shop and metal-shop offerings in the intermediate grade schools should be supplemented by courses in specific trades, such as plumbing, carpentry, telephone servicing, installation of electrical wiring, typewriter and business machine repair, and welding.

(9) Counselors throughout the District have expressed as a staff objective greater familiarity with current ideas regarding birth control, marriage, and the emotional problems of adolescence.

(10) Two local universities have offered the District student teachers to assist staff in providing tutoring to students with a history of low achievement.

(11) A counselor complained to one of the high schoool teachers that counselors are over-burdened with paper work and clerical responsibilities, to the detriment of one-to-one contact with students having problems related to dating, marriage goals, etc.

(12) The desirability and feasibility of an inservice teacher training program concerning the cultural and historical background of many of the District's low-ability students is being investigated by a committee of high school social studies teachers.

Problem Signal Category	CRITERIA Do any of the signals in this category: (1) refer to student outcomes?	(2) refer to district-level problems?	(3) refer to long-range problems?	(4) were communicated by significant sources and/or methods?	DECISION: Do the signals in this category warrant further analysis (i.e., meet all four criteria)?
1. *Education of Low-Achieving Students* Signals: *5, 6, 10, 12*	Yes ✓ / No	Yes ✓ / No	Yes ✓ / No	Yes ✓ / No	Yes ✓ / No
2. *Family Life and Sex Education* Signals: *1, 4, 9, 11*	Yes ✓ / No	Yes ✓ / No	Yes ✓ / No	Yes ✓ / No	Yes ✓ / No
3. *Occupational Skills Training* Signals: *2, 3, 7, 8*	Yes / No ✓	Yes ✓ / No	Yes ✓ / No	Yes ✓ / No	Yes / No ✓

MCUSD NEWS

INSTRUCTIONAL PLANNING TEAM FORMED TO TACKLE SCHOOLS' BIGGEST PROBLEMS

Sept.___ Responding to public pressure for greater accountability in the schools, Superintendent Redford announced Monday the appointment of a district-wide Instructional Planning Team to initiate renewal of MCUSD's instructional program. Dr. Redford stated that he has high hopes that the efforts of the new planning team will enable MCUSD to communicate better with community groups and to bring them into the educational decision-making process.

To help the Instructional Planning Team initiate their investigation of MCUSD's instructional problems, arrangements have been made for them to participate in a training course on the latest instructional planning techniques. The course will be coordinated by the district's research director, using a set of self-contained training materials developed by the Far West Laboratory, an educational research and development agency.

The team's initial task will be to weed through dozens of "signals" of problems existing in the district that have come to Dr. Redford's attention from sources both inside and outside the school system. These problem signals include suggestions for course changes from students and staff, complaints from parents and community groups, reports in professional journals on national educational priorities--in short, anything which has been regarded as pertinent to improving the quality of education in Mid City.

Over the next month, the Instructional Planning Team will receive training to help them identify which problem signals warrant systematic investigation. Their objective is to complete an investigation. Their objective at the end of the entire training course is to complete an investigation of the major problems in the MCUSD instructional program and to submit recommended priorities for action by the end of the spring quarter, in time to guide district decision makers in preparing next year's school budget. The Instructional Planning Team's progress in analyzing MCUSD's instructional problems will be regularly reported in MCUSD NEWS.

INSTRUCTIONS FOR TEAM ACTIVITY

Classifying Problem Signals and Deciding Which Warrant Further Analysis

As a team, you will now review the problem signals which have come to the attention of MCUSD staff to decide which ones warrant further analysis. Remove one copy of the worksheet which follows this page and use it to record the team's decisions. Then:

1. Remove and separate the yellow cards which follow Worksheet 1. These cards are the "problem signals" received by MCUSD staff. Actually each card represents a more complete document in the problem signal file you received from Superintendent Redford.

2. Quickly scan all the signals. (You will have a chance to review the signals more carefully during Modules Two and Three.) While reading, refer to the problem signal categories listed along the left side of Worksheet 1. Group together the related signals that fall within each category. You may find it helpful to place related signal cards in stacks before recording your decisions on the worksheet. Most of the signals pertain to only one category, but you may decide to place a few signals in more than one category.

3. When you have decided which problem signal category each card refers to, write the signal number (in the upper right corner of each card) in the space below the appropriate category on the worksheet.

4. Now decide whether each set of problem signals meets the criteria in colums (1) to (4) for determining whether further analysis is warranted. (Refer back to pages 21-26 of the Guidelines for a fuller explanation of the criteria, if you need to.) Indicate "yes" or "no" in each column. Don't write the signal numbers in the boxes below each criterion--it's not necessary to determine whether each individual signal meets the criterion. Just make sure that at least one signal in the category meets the criterion before recording a "yes" answer.

5. Finally, indicate in the far right column whether each set of signals warrants further analysis, that is, meets all four criteria.

WHEN YOU HAVE FINISHED EVALUATING EACH SET OF PROBLEM SIGNALS, TURN TO PAGE 45 AND REVIEW THE SUGGESTED RESPONSES.

WORKSHEET 1

Classifying Problem Signals and Deciding Which Warrant Further Analysis

Team_____

Signals in Each Problem Signal Category	CRITERIA Do any of the signals in this category: (1) refer to student outcomes?	(2) refer to district-level problems?	(3) refer to long-range problems?	(4) were communicated by significant sources and/or methods?	DECISION: Do the signals in this category warrant further analysis (i.e., meet all four criteria)?
1. Achievement in Basic Skills:					
2. Career Information and Guidance:					
3. Drug Education:					
4. Dropping Out of School:					
5. Staff Selection and Hiring Policies:					
6. Occupational Skills Training:					
7. Student Dissatisfaction with Curriculum:					
8. Sex and Family Life Education:					

1

State Board of Education Adopts High School Graduation Standards

The following article appeared in the Mid City Chronicle.

Mid City: Beginning next fall, all students attending public high schools in the State must prove eighth grade competency in reading and mathematics before being permitted to graduate. This minimum proficiency standard, recently adopted by the State Board of Education, is believed to be the first of its kind in the nation. Schools may use various means of assessing students' competency. One way is through statewide tests in reading and mathematics already required by law at various stages of their schooling. Students may also qualify by passing locally selected exams based on state-adopted textbooks or by satisfactorily completing a one-semester diagnostic and remedial course. The new standards are required under an education reform bill enacted last year by the State Legislature.

Many parents and members of concerned groups have already voiced their concern about the new standards, claiming that the raised proficiency standards would result in an increased retention rate of students. Since many of the low achieving students in MCUSD secondary schools are Black and Mexican-American, some people fear that increased numbers of them will fail. Furthermore, MCUSD's secondary principals have expressed fear that the increased number of students who would in previous years have graduated will put an unexpected burden on the District's financial stability.

2

Demand for Black Studies

The Afro-American High School Students' Organization of Mid City, an alliance of the Afro-American Organizations at all three Mid City high schools, has distributed a political leaflet. Many high school and junior high school teachers, students, and administrators have received and read the leaflet. In addition, members of the various Afro-American Organizations have passed out the leaflet in different sections of Mid City. You have received many calls and inquiries about the leaflet from all elements of the community. The leaflet, which of course you have studied yourself, is phrased in the form of a list of demands for a comprehensive Black Studies Program in MCUSD high schools. While it does not go into specific details of the desired program, its message is quite clear, as demonstrated by an upraised fist, and its claims of unity and of "having waited long enough" for action on the demands. The leaflet mentions the following general items: Black Faculty, Black History, Black Literature, African Languages, Soul Food, and African Food.

The leaflet closes with the following statement: BROTHERS AND SISTERS OF MID CITY: REMAIN UNITED, REMAIN DEDICATED, AND REFUSE TO COMPROMISE.....TOGETHER WE WILL WIN!!!

An Incident of Drug Abuse

Several days ago you had lunch with a math teacher from one of Mid City's high schools. The teacher is known as being energetic and interested in constructively revising the instructional curriculum to deal with the contemporary social and personal problems of students. He was quite emotional, and said he wanted to talk about a serious matter with you.

Your friend began to relate how, for the past few weeks, one of his students had been coming to him about his problems with various drugs. The teacher spoke excitedly about how the young student experimented with a full range of drugs, from mild to hard narcotic. The teacher felt that the student was seeking his advice and consolation as the first step in his attempt to function without drugs. The teacher closed his conversation by saying, "I'm in no position to tell my students about these things--my field is algebra and calculus. This boy came to me for guidance, but I'm not a counselor either. Every student enrolled in Mid City schools should be receiving instruction and counselling about drugs, not just when they have a real need for it like this boy, but before they find themselves in this situation."

Announcement Concerning Funds for Dropouts

District-level staff were asked to attend a high-priority meeting called by the Special Project Director. At the meeting those present were informed that Federal and State money specifically designated to re-educate and re-train students who have dropped out of school can be applied for by districts with severe dropout problems. The Special Project Director intends to contact leaders of the West Side Coalition, the Chamber of Commerce, and manufacturing and industrial firms in Mid City in hopes of forming a committee to study how MCUSD could put such funding to best use. He concluded, "This means that the dropout problem need not constitute a critical drain on the District's administrative and financial resources."

Side-Effects of Student Disinterest in School Courses

A multi-racial group of parents whose sons and daughters attend Mid City secondary schools, has sent a letter to all the principals of these schools. The letter complains that the schools' instructional programs no longer seem to interest their children. The parents say that the schools have reported to them increasing rates of tardiness and absenteeism on the part of their children. The parents also state that the grades their children have been receiving during this school year are the lowest they have ever received. Increasing dissension and conflict within the family have also accompanied these school-related developments. When asked to explain what is going on, the parents claim that their children respond with vague answers, like "School is boring," or "They don't teach anything at my school."

The parents requested a meeting as soon as possible with the principals to discuss their complaints and to find out what was behind the problems their children were having.

Significance of Occupational Information Services

The following article appeared in the Mid City Chronicle:

Mid City: A recent State study reports that the most practical, effective index for identifying potential dropouts is a combination of grade average in the lowest quarter of the class and lack of participation in extracurricular activities. However, potential dropouts who actively sought counselling in vocational preparation were more likely to remain in school than those who did not. Robert Maughm, Vocational Education Director of the Bay County Schools, today commented to newsmen on the significance of this newly released study. "The Bay County schools must realize," he said, "how much vocational counselling contributes to the holding power of the comprehensive high school." Maughm said that the vocational guidance programs of every high school in Bay County need to be revamped so that all non-college-bound students are being counselled about job trends, high need occupations, training requirements for various jobs, and post-high-school training opportunities.

Memo About State Funding for Drug Education Training

TO: Assistant Superintendent for Instruction

FROM: Carol Lowenstein, Title III Coordinator

SUBJECT: State help for drug education

Just talked to the State Department of Education and was told that $200,000 will be available for training this summer of up to 5,000 teachers and community leaders to carry on drug education programs. Details will be arriving here next week.

I just wanted to let you know ahead of time that we can have help if our plans are ready and people can be selected.

Let's meet anytime after next week on this. You say when.

Loyalty Oath is Unconstitutional

A front-page article in the Mid City Chronicle is headlined "State Teacher Loyalty Oath Ruled Out." It states that prospective teachers are no longer required to take a loyalty oath to obtain a credential, according to the decision rendered by the U. S. Supreme Court.

The recently elected State Superintendent of Public Instruction said that he is satisfied with the Court's decision, but "I see nothing wrong, in general, with requiring a teacher or administrator who works with young people to state their intent to support the laws and Constitution of this State and Nation."

Memo About Availability of Federal Financing

To: All Central Office Personnel and School Principals
From: Superintendent Redford
Subject: Availability of Federal Financing

I have just received a "Proposal Reminder" from the Office of Research, State Department of Education. The recently passed Vocational Education Amendments authorized increased funds for local schools undertaking needs-survey projects, teacher training projects, instructional projects, or construction projects in the area of vocational education. These increases are especially welcome in view of the funding cutbacks in almost all other educational areas.

Project proposals must be mailed to the Associate Commissioner for Adult, Vocational, and Library Programs, U.S. Office of Education, Washington, D.C., within six months of this notification. While I am anxious to see MCUSD receive Federal support for projects like these, specific problems in the area of vocational education must first be identified prior to the development of a funding proposal, and certainly prior to the expenditure of any money.

Reactions of the Chamber of Commerce

Superintendent Redford recently spoke at a luncheon meeting of the Education Committee of the Mid City Chamber of Commerce. He summarized the major points raised during the discussion period afterward as follows:

1. The Committee, and the Chamber in general, are concerned that the vocational training presently available in the MCUSD is obsolete, and does not provide adequate preparation for existing and anticipated occupations in Mid City.

2. Several Chamber members mentioned personal experiences with graduates of Mid City schools who were unbelievably poor in arithmetic, spelling, and personal and social courtesy.

3. According to these same members, many job applicants who were recent graduates from the MCUSD could not pass qualifying examinations in which only a basic knowledge of general English and mathematics skills was required. In addition, their application forms were incomplete and carelessly written.

4. One of the Committee's members (a high-level executive of one of the largest industrial firms in Mid City) complained about the failure of MCUSD to adjust its vocational education program to take into account the decreasing need for semi-skilled mechanical workers and the increasing need for supervisory and sales personnel.

The Chamber's Education Committee is willing to form an Education-Business Partnership in Mid City to enable the schools to provide students with more modernized on-the-job training facilities.

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Black Students' Growing Awareness

You have received an inter-office memorandum from the Supervisor of Secondary Education of MCUSD. The memorandum consists of a letter received by the Supervisor from a teacher, plus a note from the Supervisor stressing the significance of the letter. The note adds that the author of the letter is a Black-American, that his instructional area is science, and that he is currently serving as an advisor to an Afro-American Student Organization at one of Mid City's three high schools. The teacher has informed the Supervisor that he is acting as spokesman for the student organization to communicate its opinions to all District staff.

The letter points out that Black students in MCUSD high schools have formed their own organizations, and are discussing and studying Black History and Culture independently of the regular school curriculum. As a result, they are becoming more intensely aware of the inadequacies of the present curriculum, especially in the social sciences, and more convinced of its irrelevance to their feelings and desires. The author emphasizes that this awareness will disrupt the schools by more extreme forms of expression, if school administrators and planners do not examine its sources and create new curriculum and courses in response to it.

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Teachers Worried About Achievement Levels

The following resolution was unanimously endorsed by the membership of the Mid City Local of the American Federation of Teachers and directed to "the District's Instructional Program":

> In all candor, we feel that the District has not taken adequate steps to alleviate certain undesirable conditions in some Mid City schools. Our membership has been complaining for some time now about the District's failure to provide specialized programs for the large number of culturally different pupils who attend Mid City schools, especially Tyler, Muir, and Montgomery Elementary Schools, where black pupils alone comprise over 50% of each school's enrollment.
>
> Educational programs must be developed which will bring relevant curriculum methods and materials to bear on the education of Mid City children from culturally different groups whose achievement in basic skill areas continually lags behind (often two to four years) that of other Mid City children. Such programs must provide for the achievement of these children in terms of their goals and those of the society in which they live.

Job Training Needs Identified by Business Community

Recently a group of Mid City businessmen occupying managerial positions in several small-and large-scale organizations visited the occupational skills classes at the three Mid City high schools. The group then sent a letter to the District Office in which they stated that "none of the courses we observed or studied constitute adequate training or preparation for the occupations needed or wanted by our firms. In particular we note training gaps in the following skill and job areas:

1) technical work on aircraft
2) dry cleaning
3) electronics
4) machine shop operators
5) refrigeration installation and repair
6) offset printing
7) automotive repair
8) electric installation and repair
9) food store operations
10) power sawing
11) welding

Parent Suggests Comprehensive Sex and Family Life Education Program

Lawrence Babcock, a parent whose two children attend Dawson Junior High School in Mid City, called the principal recently to complain that "If the function of the school is to educate the whole child, then the subject of family living and sex cannot be ignored by the school." Babcock said that he feels his children are getting insufficient and inaccurate information about human reproductive physiology, and are not being well prepared to assume the responsibilities of wives, husbands, and parents.

He stressed that, since many parents and churches fail to provide adequate information to children, the school is the logical institution to handle the teaching of this subject, and must begin while the children are young enough to be influenced by the moral values of the community into which they will move as adults.

The Varied Costs of Negligent Skill Preparation

In a luncheon conversation with several non-school people who were participants at a county-wide conference on "Vocational Education: The Possibility of a Business-Education Partnership," you were reminded of some of the hidden costs of neglecting to provide students (especially non-college-bound ones) with saleable job market skills:

1) Persons not earning a wage detract from the wages of others because they are often supported with public tax funds.

2) Non-wage earners, or those whose wage-earning potential is limited by poor job preparation, actually withhold possible sources of revenue and investment from business, which in turn is an unnecessary restraint on economic growth, both corporate and individual.

3) While re-training is often effective, it means that for the re-training period the individual is still not making a full economic contribution to the community, nor is he advancing or being remunerated at the same rate as he would have been had he graduated from high school properly trained for today's job market.

4) Unemployed or underemployed people often become psychologically distressed and engage in criminal activity to supplement their meager resources, or in anti-social behavior as a way of expressing their frustrations. Then other public agencies must spend money rehabilitating or treating these individuals.

School Board Meeting

The following description of the most recent MCUSD School Board meeting was related to you in a conversation with a staff member who attended:

The meeting was heavily attended and quite tumultuous. The Board had to abandon its planned format because several of those present were very insistent about presenting their ideas concerning a significant problem in the MCUSD.

The chairman of the West Side Coalition introduced several recent graduates of Mid City high schools. They spoke bitterly and emotionally about having been graduated or moved to the next grade level when it was obvious that their achievement levels in basic skill areas were far below any acceptable standard.

The speakers blamed their limited abilities in basic skill areas on inadequate preparation during their elementary school years. They proposed that: (a) language development be emphasized in Kindergarten and Early Primary grades, (b) individualized needs be diagnosed in skill areas such as speaking, listening, vocabulary development, phonic skills, reading comprehension, spelling, and writing, and (c) small group instruction be expanded through the services of instructional aides and supplementary reading teachers.

Sex Education

The following item was brought to your attention by a friend, who noticed it in the education section of a national news magazine:

A Gallup poll indicates that 71 percent of adult Americans want schools to offer sex education. By unofficial estimate, nearly two-thirds of all school districts in the nation offer sex education in some form. In their reporting of the current public controversy over sex education, the news media have tended to ignore these realities while focusing on the objections of such ultra-conservative organizations as the John Birch Society and the Christian Crusade. (The Christian Crusade views sex education as "part of a gigantic conspiracy to bring down America from within.")

In view of the overwhelming public and professional demand for sex education, the disagreement appears to be not about the relevance of sex education but over what such instruction should include. The content and approach of current programs vary widely.

Background to Dilemma of Providing Career Information and Guidance

Several counselors and Vocational Education teachers in the District met informally to discuss common problems. These are the main points that were stressed at the meeting:

1) While both the teachers and counselors had an ample supply of information to use in a student career guidance capacity, their other responsibilities kept them from performing adequately in this role.

2) Teachers are primarily responsible for skill instruction, and for insuring the relevance of this instruction by constant updating and modernization.

3) Counselors must plan and revise student programs, assist students in entering college, and deal with the personal problems of students on such matters as sex and drugs, plus working with the teaching staff to plan specialized classes for the highly gifted or retarded student.

4) "Given these conditions," Carl Fleming, a high school counselor, emphasized, "it is unreasonable to expect any member of either professional group represented here to do a satisfactory job of career guidance. More personnel are needed if the District determines that career guidance is a high priority item. Either that, or a rearrangement of the functions of Vocational Education teachers and counselors, so that some of the present workload is handled by para-professional community people and we are free to devote more time to career counselling. The information is there, the student motivation and staff desire are there, yet the students are still getting shortchanged."

New Teacher Selection Procedure

The School District of Philadelphia has embarked upon a research project to determine the value of the National Teachers Examination as a criterion for teacher eligibility in the city's schools. A passing score on the NTE, a comprehensive examination for prospective teachers published by the Educational Testing Service of Princeton, New Jersey, has long been a teacher requirement in Philadelphia. In the course of the project, 200 teachers have been admitted to the system without having to pass the NTE. An evaluation of the applicant's college credentials and the reports of his student teaching or regular teaching performance have been substituted for the NTE.

A task force, consisting of central office personnel, representatives of the Educational Testing Service, and community representatives, is developing criteria to evaluate the teacher's classroom performance. These criteria will be applied both to teachers selected via NTE and to the 200 teachers selected through the new procedures. The results will then be compared to determine whether the use of the NTE should be continued.

Dropout Statistics

You have just read a recent consultant's report on "Dropouts in Mid City." The report concluded that the dropout rate in Mid City had increased by 30% over the past two years, and that it was expected to keep rising. The ratio of boys to girls dropping out was 2 to 1, with the highest incidence of dropouts occurring at the eleventh grade. The consultant predicted that not only will more students drop out during this school year, but they will begin dropping out at earlier grade levels.

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Mid City Accused of Classing Low-Achieving Ghetto Youngsters as Retarded

The following article appeared in the Mid City Chronicle:

A spokesman for 19 attorneys charged Saturday that the Mid City Unified School District has "illegally and improperly" placed 11 Black and 9 Mexican-American elementary students in classes for educationally handicapped (EH) or educable mentally retarded (EMR) pupils. Attorney Anthony Sanderson, representing the firm of Miller, Jackson & Smith, said a claim would be filed Monday on behalf of the students and their parents, demanding that the classifications be revoked and that a minimum of $40,000 be paid in punitive and material damages.

Sanderson said parents of the youngsters insist that placement of their children in EH or EMR classes is a "cop-out" by the district for its failure to help the children master essential academic skills. He reported one parent as saying, "The schools don't care whether our kids ever learn to read or write, so they just dump them in classes for the retarded and forget about them."

Sanderson alleges that the 20 students, ranging from 6 to 12 years of age and enrolled in eight of the district elementary schools, had been assigned to EH or EMR classes on the basis of placement standards which "do not take into account the language problem and limited experience and exposure to the outside world of children who grow up in the ghettos and barrios."

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National Assessment of Need for Occupational Counselling

MCUSD's research director came across the following section from a recent report of the Advisory Council on Vocational Education, U.S. Department of Health, Education, and Welfare, called "Vocational Education in the Decade Ahead."

> What are the causes of the serious discrepancy between the present emphasis in vocational training and the growing occupational needs of the nation? It appears that a major share of the blame must rest upon the vocational guidance which the schools give students. If female students were informed of the high probability that at some time during their lives they would be working full time, they might seek vocational training that emphasized job skills rather than homemaking. If male students were made aware of the occupational areas which will be most in demand in the years ahead, and of the training needed to fill these occupational demands, they might be directed to more meaningful choices in their vocational education.
>
> It is true that not only local schools, but also state and federal agencies, have difficulty in securing up-to-date, comprehensive occupational information as well as in making accurate forecasts of future occupational trends. The urgent need now is to get this information into the hands of school counselors, and to assist them in distributing this information to students so that it will improve their vocational decisions.

Teachers Respond to Student Demands for Curriculum Revision

A panel of Social Studies teachers from MCUSD's three high schools has requested additional funds with which to purchase curriculum materials that meet the following criteria:

1. are related to contemporary problems,

2. emphasize a concept/inquiry approach to skill and content development.

The teachers maintain that their students are expressing dissatisfaction with many of the instructional materials they have been using. According to their spokesman, the Social Studies Resource Coordinator, "The subject matter of traditional Social Studies textbooks is viewed as childish and unimportant and the learning exercises are rejected as uninspiring and unimaginative. It is not unreasonable to say that roughly $5000 to $6000 has been wasted on useless curriculum items this year."

West Side Coalition Denounces Vocational Guidance

The West Side Coalition, a local community action group, mailed Superintendent Redford a letter criticizing the vocational guidance services in MCUSD secondary schools. The following charges were made:

1. Non-college-bound students, many of them Blacks and Mexican-Americans, are not receiving the kind of information they need about available jobs and post-high-school training opportunities.

2. MCUSD counselors are uncooperative, hard to talk to, and apparently either lack up-to-date vocational information to make available to Mid City's secondary students, or simply will not take the time to pass such information on to the students.

The letter closed, "We are weary of talking about these things. This is not the first time we have brought them to your attention. We want to see some action."

Social Science Course Changes

A group of Black and Mexican-American teachers, with the support of the local AFT, put the following resolution before the Mid City Board of Education:

> "The contributions of Black-Americans, Mexican-Americans, and other so-called 'minority groups,' to the economic, social, and political development of State and U.S. History, should be a required part of the Social Studies program in the MCUSD."

In a speech before the Board, Leslie Martinez, a Social Studies curriculum supervisor, spoke for the group when he stated that "the existing social science curriculum is irrelevant and uninteresting to many students. After considerable observation of student behavior and performance, lengthy discussion among both teachers and students, we feel this resolution should be passed as the first step in the reconstruction of our instructional program."

Need for Extended Sex Education Program Expressed by Student

A paper by a student in one of the Marriage and Family classes at Garfield High School has been forwarded to you by the teacher of the class. The student comments that:

1. The High School gives students inadequate assistance with their personal problems.
2. A majority of high school students are concerned about dating, emotional control, morals, and planning for marriage and family living.
3. A minority of students also experience more serious problems, such as illegitimate pregnancies, forced marriages, and V.D.
4. The senior-year course in Marriage and Family does not really help students to handle these problems. Less than 20% of the senior class elects to take the course each year. All the school does is offer too little, too late, to too few.
5. Students need opportunities for individual counselling about sex matters.
6. Students need to be aware of community services available to them and should be helped to contact appropriate ones when the need arises.
7. The counselors seem too heavily burdened with clerical tasks, course planning, and college placement to have time to counsel students individually about personal problems.

Work Experience

A letter was received by the Superintendent from the Business and Vocational Education teachers of Hamilton High School which alleges that the present occupational training in MCUSD high schools is "unrealistic in that it restricts the student's vocational experience to only those situations which are available at the school, rather than fully utilizing community resources." The letter maintains that "since we do not now have, and are not likely to get in the near future, facilities which can provide training relevant to many highly specialized and skilled occupations, new links must be formed between the schools and local businesses and industries in Mid City."

The teachers referred favorably to an existing program in nearby Montgomery County. There, seniors at Churchill High School are participating in an Extended Experience Program. They spend two to three periods of their seven-period day working in jobs related to their college or career plans--in law and newspaper offices, in social work, teaching, and medical fields.

Improving the High School Program in the MCUSD

The student councils of all three Mid City high schools (Clark, Garfield, and Hamilton) have issued a "Manifesto for the Improvement of Mid City High Schools." The following points were the focus of the students' grievances:

1. Teaching based on concepts rather than memorization of facts would be more helpful in preparing the student to think.
2. More emphasis placed on writing, including creative writing and short essays, to organize and clarify thinking.
3. More emphasis on group discussions with different types of students and outside speakers.
4. A larger course selection, such as ecology, Black and Chicano studies, psychology, and human relations courses.
5. A larger reading selection in the library.
6. More guidance in what to expect during the first year in college and what courses to take. College students who visit the school and speak also would be helpful.

Educational Needs Defined

You have been reading a report of the "Assessment of Bay County Educational and Cultural Needs," prepared by the staff of the Bay County Supplementary Education Center. Schools in the MCUSD were among those covered in this comprehensive needs survey. The report emphasizes the following points:

1. Over half the students in Bay County do not plan to pursue further academic training beyond high school. Mid City's three high schools account for 65% of this figure.

2. Seventy percent of the teachers in the MCUSD rated as a critical or important problem the statement that "a significant number of non-college-bound students were not prepared for jobs."

3. MCUSD secondary schools are primarily academic in orientation, despite data which indicate that many students are not primarily oriented in that direction.

4. Mid City junior and senior high school teachers favored:

   a. the improvement and expansion of vocational training courses;

   b. an increased use of local craftsmen, businessmen, and industries in cooperative job-training arrangements with the schools, and

   c. a revised instructional curriculum based on "education for employability," for Mid City's low-achieving students.

Underlying Causes for Curriculum Inadequacies

An article in the journal Leadership in Education entitled "Modern Society and the School: The Gap Between Them," was brought to your attention by one of the District's Curriculum Coordinators. He claimed that even though the article was in a national magazine, it was quite applicable to Mid City's schools. The main theme was that social problems contemporary students were being exposed to outside of school were becoming a strong and influential "curriculum" for the students. The schools are in a position of competing for the attention of young people who, after being exposed to this alternate "curriculum," find school dull and uninteresting. This trend is increasing, making it more difficult day-by-day for the schools to "catch up" with the social experiences of their students, much less design a curriculum that will develop the abilities necessary to solve the problems which confront them.

Revised Time Blocks for Job Training

A group of vocational instructors from several junior and senior high schools in MCUSD recently communicated to you the results of a meeting they had with the State Supervisor of Trade and Industrial Programs. The meeting was held to discuss current conditions in MCUSD regarding job preparation programs, to receive new information pertinent to the field, and to seek the analysis and advice of the Supervisor.

The group concluded that it might be beneficial to experiment with the length of vocational education class periods. The teachers stated the usual fifty-minute class did not allow sufficient time for: a) job orientation, b) safety instruction, c) care and maintenance of equipment, nor d) activities for developing industrial skills.

The instructors suggested that "two- or three-hour skill development courses in the industrial trades need not necessarily be confined to the school classroom, but should utilize community resources. We feel the existing program does not enable our students to compete in the national and state labor markets." It was also felt that eleventh and twelfth grade students should be the most immediate beneficiaries of an extension and modernization of vocational training since they will graduate in the near future.

Mini-Courses Based on Student Interest

Teachers at Lakedale Junior High School in the MCUSD have conducted a survey of student interest at the request of the Lakedale Student Council. The Council had repeatedly emphasized that the classes given at the school did not deal with the real interests of students. The teachers responded to the desire of students for more exciting courses by stating their intention to use the results of the survey as a basis for a series of "mini-courses," each lasting six weeks, two periods a week, with no grades given. The survey disclosed that the highest interest areas were the following:

pet care	buying and selling consumer products
modern music	calligraphy
Black History	photography
personal grooming	the history of drugs
guitar	the history of sports

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Excerpts from DRUG USERS AND ABUSERS

A position paper of the U.S. Food and Drug Administration's Drug Education Project, entitled Drug Users and Abusers, is among the new listings in MCUSD's library. The following points were made:

American society has become permeated with an excessive interest in, use of, and dependence on, a full range of drugs. Amphetamines and barbiturates are over-prescribed by many doctors and over-used by much of the adult population. The pathetic aspect of this situation is that Americans have not taught themselves or their children respect for drugs or for what is in the medicine cabinet. The largest supply sources of illicit drugs used by young people are their parents' medicine cabinets.

A national drug education effort should be exerted toward reducing the massive social and psychological pressures that exist in society to use a whole variety of mind-alerting substances. Much of this over-indulgence centers on the imagery that is communicated by advertising.

During the past 6 years, the arrests of young people under 18 for narcotic drug law violations rose 778.3% in this country. Certainly we are doing something wrong. The blame has to be shared by the parents, schools, churches, and the judicial system. We see the nation's schools as the most likely candidate to communicate to the young people objective information about the various mind-alerting substances being used by Americans today. We hope to persuade the federal government to provide increased financial aid to local schools, in order that a massive educational campaign against drug abuse may begin.

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Professional Evaluation of Vocational Education

A Professor of Education at the local campus of the State University who has often served as a vocational education consultant, recently described a promising program he learned about from a colleague: the Cooperative Vocational Training Program. It involves a team effort of high school, employer, and high school student to provide practical training and purposeful work for students.

The Co-op student, who may or may not be college-bound, attends school half-day and works half-day for a Co-op employer. Various credit ratings may be assigned to this on-the-job training. The program is now in effect in several Midwestern states. The professor thought MCUSD could profit by adopting some version of this program.

At present students' occupational skills training is limited to the inadequate course offerings at the three high schools. These inadequacies arise from: (1) the poor and obsolete condition of the machinery and equipment in the classrooms; (2) the over-generalized nature of the job preparation; (3) a consequent lack of intensive concentration on a set of specialized skills; (4) the inability of students to apply training because of the limited setting in which it is offered; (5) the gap between the skill demands of existing and expected occupations and present occupational training; and (6) the absence of school-community cooperation in the vocational education area.

Dropouts Reported at Garfield High School

Mr. Robert Bush, principal of Garfield High School, has notified you that each year for the past two years nearly 60 students from his school have terminated their education before completion of grade twelve. He stated that "this provides evidence of a significant instructional dilemma confronting our District." He added that this problem is creating "trends of failure and negative attitudes toward education that are characteristic of a small but growing segment of our high-school age population."

Financial Advantages of Modern Occupational Skill Development

The district librarian forwarded to you a State Department of Education Official Bulletin entitled "Retraining in Our State." It summarizes some of the savings which will result from the State's retraining program for high school graduates and dropouts who were not prepared for jobs upon leaving high school. The Bulletin emphasizes that "the gain from retraining is roughly equivalent to the amount lost by the State by failure of the State's secondary schools to ensure that these trainees received needed training while in school."

1. EARNINGS. Assuming a conservative estimate of $4,300 annual wage for each trainee returned to productive employment, the projected gross annual earnings of the retrained would amount to about $16,000,000. The gross earnings of trainees will of course continue to rise as the program expands and the workers' annual wages increase.

2. UNEMPLOYMENT INSURANCE. Assuming that as few as one-quarter of the 13,754 trainees who so far have been enrolled would have been claiming an average of $44 each week in unemployment insurance benefits, the savings to the Unemployment Insurance Fund would be more than $1,000,000 annually.

3. PUBLIC ASSISTANCE. Approximately 13% of the trainees referred to the State retraining program have been recipients of public assistance. Most of these individuals have been mothers with dependent children. The average public assistance payments under the Aid to Families with Dependent Children program is about $170 per month. An annual savings of about $1,000,000 in public assistance payments will accrue as this group becomes employed.

SUGGESTED RESPONSES FOR TEAM ACTIVITY

Classifying Problem Signals and Deciding Which Warrant Further Analysis

To give you an idea of how well your team classified and evaluated the problem signals, compare your team's responses with those suggested on the following pages. The Suggested Responses are not intended to be "model answers," but simply present one possible way in which the problem signals you read could have been classified and evaluated.

They also present a rationale for the evaluations of the problem signals in each category. The statements numbered (1), (2), (3), and (4) explain the developers' "yes" and "no" decisions for the four criteria for determining whether problem signals warrant further analysis.

If your team's judgments are different from those given in the Suggested Responses, they may still be very appropriate. If there are large discrepancies, discuss them with the Coordinator.

Signals in Each Problem Signal Category	CRITERIA: Do any of the signals in this category: (1) refer to student outcomes?	(2) refer to district-level problems?	(3) refer to long-range problems?	(4) were communicated by significant sources and/or methods?	DECISION: Do the signals in this category warrant further analysis (i.e., meet all four criteria)?
1. Achievement in Basic Skills *1, 12, 16, 21*	*yes*	*yes*	*yes*	*yes*	*yes*
Rationale: *(1) Student outcomes mentioned include poor achievement in basic skills (12, 16), specialized curriculum needs of culturally different students (12), need for individualized diagnosis of students' communication skills (16), possible failure of students to meet new graduation standards (1), and identification of low-achieving students as educationally handicapped or educable mentally retarded (21).* *(2) The problem apparently exists in schools throughout MCUSD (12, 16, 21).* *(3) The problem apparently has existed for a long time (12, 16), and long-term future effects of the new graduation standards have been projected (1).* *(4) Signals were received from groups of sizable membership (12, 16, 21), and in the form of a State education reform bill (1) and a lawsuit (21).*					
2. Career Information and Guidance *6, 9, 18, 22, 24*	*yes*	*yes*	*yes*	*yes*	*yes*
Rationale: *(1) Student outcomes mentioned include awareness of available jobs and post-high-school training opportunities (6,22,24), and vocational decision making (22).* *(2) Various signals corroborate the inadequacy of career guidance in all MCUSD secondary schools (18, 24).* *(3) Several sources advise long-range planning to provide needed career information and guidance (6, 18, 22). West Side Coalition apparently has been complaining about this problem for a long time (24). Federal Vocational Education Amendments recognize this as a continuing concern (9).* *(4) Signals were received from a large proportion of MCUSD's Vocational Education staff (18), from a sizable community group (24), from persons or organizations of status (9, 22), and in the form of reports of intensive studies (6, 22).*					
3. Drug Education *3, 7, 33*	*yes*	*no*	*yes*	*yes*	*no*
Rationale: *(1) Students' need for information and guidance concerning drugs (3), use of illicit drugs (33), and arrests for drug law violations (33) are student outcomes.* *(2) One signal refers to <u>one</u> MCUSD student (3), and the other signals are not specific to MCUSD (7, 33). Thus, there is no indication of a district-level drug problem.* *(3) State Department of Education recognizes drug education as a continuing concern (7). Experts claim roots of drug abuse are deep-seated in American society and urge that a massive educational campaign be started (33).* *(4) High-level decision makers (7), and drug education experts (33) have signalled the problem.*					

Signals in Each Problem Signal Category	CRITERIA: Do any of the signals in this category: (1) refer to student outcomes?	(2) refer to district-level problems?	(3) refer to long-range problems?	(4) were communicated by significant sources and/or methods?	DECISION: Do the signals in this category warrant further analysis (i.e., meet all four criteria)?
4. Dropping Out of School *4, 6, 20, 35, 36*	*yes*	*yes*	*yes*	*yes*	*yes*

Rationale:
(1) A considerable number of students are reported to be dropping out of school (20, 35).
(2) Consultant reported data pertaining to Mid City as a whole (20). Committee may be formed to plan district-wide solutions to the dropout problem (4).
(3) Consultant reports dropout rate is increasing and occurring at earlier grades (20). Principal corroborates consultant's conclusion that a growing segment of MCUSD's high school students are dropping out (35). Financial loss to the State, and federal and State funding affirm need for long-range solution (4, 36).
(4) Government agencies have affirmed urgency of the problem by creating special funds for re-training dropouts (4). Other signals are based on intensive studies of local (20) and state- and county-wide (9) conditions.

5. Staff Selection and Hiring Policies *8, 19*	*no*	*no*	*no*	*yes*	*no*

Rationale:
(1) Teacher hiring procedures are a school concern other than student outcome (8, 19).
(2) No reference to problems arising in MCUSD.
(3) No reference to potential changes in teacher selection procedures or requirements which MCUSD should anticipate (8, 19).
(4) A U.S. Supreme Court decision is a significant signal (8).

6. Occupational Skills Training *9, 10, 13, 15, 27, 29, 31, 34, 36*	*yes*	*yes*	*yes*	*yes*	*yes*

Rationale:
(1) Student outcomes include preparation of students to successfully compete for jobs (10, 29, 31, 34), development of specialized skills for high-need occupations (13, 27, 34), and student use of community resources for vocational training (27, 29, 31, 34).
(2) Secondary students and teachers from all three MCUSD high schools consider MCUSD's vocational training inadequate (27,29,31). Community businessmen contend that vocational training courses at all MCUSD high schools are either inadequate or obsolete (10,13). Other signals confirm the district-wide scope of the problem (31,34).
(3) Long-range planning is required to keep vocational training abreast of occupational trends (10, 13, 34). Problem has long-range implications for both individual and corporate financial situations (15, 36), and is recognized as a continuing concern in the Vocational Education Amendments (9).
(4) Volume of signals received is significant. Signals were received from several groups (10, 13, 15, 27, 31), from persons and organizations of status (9, 36), and in the form of comprehensive reports (29, 36).

Signals in Each Problem Signal Category	CRITERIA: Do any of the signals in this category: (1) refer to student outcomes?	(2) refer to district-level problems?	(3) refer to long-range problems?	(4) were communicated by significant sources and/or methods?	DECISION: Do the signals in this category warrant further analysis (i.e., meet all four criteria?
7. Student Dissatisfaction with Curriculum *2, 5, 11, 23, 25, 28, 30, 32*	*yes*	*yes*	*yes*	*yes*	*yes*

Rationale:
(1) Discontentment with present instructional experiences (5, 23, 28), feelings of irrelevance of social science curriculum (11, 23, 25, 30, 32), and need for familiarization with historical contributions of "minority groups" (2, 11, 25) are the student outcomes involved.
(2) Similar sentiments have been expressed by students (2, 11, 28, 32), parents (5), and teachers (23, 25, 32) from various secondary schools in the district.
(3) Parents and teachers indicate students have been dissatisfied all year (5, 23, 25). The gap between existing curriculum and students' experiences outside of school is supposedly increasing (30) and students warn that the schools may be disrupted if curriculum changes are not made (11).
(4) Volume of signals received is significant. The signals represent the views of so many different groups within the district (2, 5, 11, 23, 25, 28, 32) that their significance cannot be ignored.

8. Sex and Family Life Education *14, 17, 26*	*yes*	*no*	*yes*	*yes*	*no*

Rationale:
(1) Student outcomes include knowledge of human reproductive physiology (14), preparation for family responsibilities (14), and being counselled about personal emotional problems (26).
(2) The two signals specific to Mid City (14, 26) each refer to only one school, and thus give no evidence of a district-level problem.
(3) The comprehensive (14) and extended (26) sex education program called for in the signals would require long-range planning.
(4) Gallup poll, representing both a significant source and method of communicating information, indicates overwhelming public and professional support for sex education (17).

Module Two

WHAT PROBLEMS DO THE SIGNALS IMPLY?

Overview

In Module One, you learned to classify problem signals and to judge whether they warrant further analysis. In this module you will learn how to write adequate definitions of the problems implied by the signals you have received. You will be given four criteria that can be used to evaluate the adequacy of problem definitions, and you will become familiar with some problems to avoid when defining problems.

By the time you complete Module Two you should be able to:

1. Explain what an instructional problem is.
2. Discriminate statements of existing student outcome, desired student outcome, potential causes of problems, and potential solutions to problems.
3. Identify criteria that are useful for judging the adequacy of problem definitions.
4. Judge whether particular problem definitions meet the criteria.
5. Discriminate problem definitions that are stated too broadly, stated to specifically, and stated at an acceptable level of specificity.
6. Write definitions of the problems implied by groups of signals that meet the criteria, and are neither too broad nor too specific.

I. Defining Student Outcome Problems

In a recent opinion survey, the following instructional problems were identified as being most in need of attention from the schools:

1. Improvement of self-concept.
2. Provision of specialized programs for the disadvantaged.
3. A cultural arts program.
4. An increase in motivation conducive to learning.
5. Vocational training and career information.
6. An increase in learning how to learn.

Do you understand in each case what the student outcome problem is? Do you know what is happening presently? Do you know what is desired? Even if you think you do understand what the problems are, would another person reading this list get the same meaning from it? Probably not, because none of these problems is clearly defined. Yet it is very common for people to communicate about "problems" in such unclear terms.

First of all, let's clarify what is meant by a "problem." In this training unit, a student outcome problem is defined as a valid discrepancy between an existing state of student outcome and the desired state of that outcome. The term "existing state" refers to the actual or present level of a particular student outcome; the term "desired state" refers to the sought-for or intended level. When you define the problem implied by a group of problem signals you have received, you should specify the unsatisfactory student outcome that the problem signals allege presently exists among students in your schools, as well as the corresponding student outcome that the problem signals imply would be more satisfactory.

Desired states are generally phrased like either goals or objectives for student performance. In fact, a district's goal statement is one of the best sources from which to derive "desired states." Information gathered during the process of analyzing problems can later be used to reexamine and revise the goal statement.

In most cases, it is not advisable to phrase the desired state in terms of the ideal, or maximum possible level of student outcome. For example, if the problem of student drop-out rate were being analyzed, a desired state of zero drop-outs would represent the ideal level. However, it would be unreasonable to set the desired state this high, because it implies that anything short of perfection would not be satisfactory.

Conditions external to the school program will always influence the level of student outcomes. Students who transfer into your district may not achieve the desired state of a particular student outcome simply because they have not been previously involved in the instructional program of your district. It is better to specify as the desired state that level of student outcome which school-related groups would consider satisfactory or acceptable.

The more explicitly you define problems, the more likely it is that someone else reading your problem statement will get the same impression of the problem that you are trying to communicate. Here are some suggested criteria for defining existing and desired states of student outcome that will help you to write explicit problem statements:

1. SPECIFY THE CURRICULAR OR INSTRUCTIONAL AREA INVOLVED.
2. SPECIFY THE GRADE LEVELS OF THE STUDENTS INVOLVED.
3. SPECIFY PARTICULAR STUDENT GROUPS INVOLVED.
4. SPECIFY THE STUDENT BEHAVIORS INVOLVED.

If your definition of a problem meets all four of these criteria, people who read or hear your problem statement will have a fairly clear idea of the problem to which you are referring. Sometimes the problem signals that you receive will not provide sufficient information for you to write problem statements that satisfy all these criteria. Problem definitions based on the initial problem signals received should be regarded as only tentative. You will generally be able to redefine problems more adequately after you have collected additional information about them.

Here are some examples of problem statements that specify existing and desired states of student outcome in terms that meet the criteria for well-defined problems:

Existing State: Our district overemphasizes academic preparation, even though the majority of our students do not plan to go on to college but are instead concerned with being prepared for the world of work. Our high school students who seek jobs upon graduation are lacking in skills that would qualify them for obtaining and holding a job.

Desired State: Our non-college-bound high school students should receive better preparation for getting a job, through vocational training courses that keep abreast of changing manpower needs.

Existing State: Elementary students who cannot read as well as their classmates are not getting sufficient special help to increase their reading skills. By the time they complete the elementary grades, their reading achievement scores have fallen approximately two-and-a-half years below grade level.

Desired State: Elementary students who are low achievers in reading, that is, their scores on district-wide standardized reading achievement tests fall within the lowest quartile, need special reading instruction. These students should be excused from some of their class activities in order to devote longer, concentrated periods of time to upgrading their reading skills.

II. Proper Scale of Problem Definitions

The final step in the process of analyzing problems will require you to make decisions about which of the problems that face your schools are the most serious. These decisions will be easier to make if all the problems that you have defined are of a similar scale or level of specificity, so that comparisons among them are possible. When you define the problem represented by a group of related problem signals, avoid stating the problem in overly broad or overly specific terms.

Generally, instructional concerns like "vocational education," "low-ability students," or "family life education" should not be treated as "problems" because they are too broad to permit careful analysis. Such statements represent broad school concerns within which several specific student outcome problems may exist.

You should also avoid defining very narrow problems, such as specific incidents of student dissent or vandalism, because such incidents do not necessarily refer to problems of district-wide or long-range concern. Often, such specific incidents are merely symptoms of more general student outcome problems that may deserve attention.

If you classify the problem signals that you receive into groups of related signals as suggested in Module One, and apply criteria like those discussed to determine whether each group of signals warrants further analysis, your definitions of the problems being signalled will very likely be of a similar scale.

What are the advantages of not defining problems too broadly or too narrowly?

1. You will know which aspects of a general problem area to investigate. It may turn out that people complaining about "the inadequate science program" actually mean "students need to learn more about ecology," whereas other aspects of a science program, such as "opportunities to experiment with scientific phenomena" may not concern them. Problem statements should be specific enough to provide guidance in setting objectives and selecting programs to solve the instructional problems. On the other hand, specific complaints such as "students loitering in the washrooms" should be considered part of a larger problem, for example, "poor classroom attendance."

2. Although various problems within a broad area might be interrelated, they may not all be valid problems for your particular school district. Within the problem area "the science program," for example, you might find that students already have sufficient opportunity to experiment with scientific phenomena. However, they may not be learning important scientific concepts and they may not be learning much about ecology. If you define the specific problems within the broad problem area, you can determine which ones are valid for your district and which are not.

3. Within a broad problem area, certain problems may be more serious than others, Consider the example "student attitudes toward school." Your community may feel that it is desirable for students to like their teachers, but absolutely critical that they value academic achievement. If you had defined the problem without distinguishing these two separate aspects, you might have concluded that this problem is "somewhat serious," when in fact it includes one problem that is critical and another of lesser seriousness.

4. It may be feasible to solve certain problems within a broad problem area, but not others. Attempting to solve all the problems in an area such as science may be too expensive for a school district. For example, giving high school students an opportunity to experiment with scientific phenomena might not be feasible if it required building special science laboratories. If the science problem had been viewed as necessarily involving "experimenting with scientific phenomena," the district might soon have concluded that this was not a feasible problem for it to solve. If however, the school district had separately considered "understanding of scientific concepts," it might have concluded that this problem was feasible for the schools to tackle even though other problems in the area of science were not.

III. Inferring Student Outcome Problems from Problem Signals Stated in Terms of Causes or Solutions

Very often the existing and desired states of student outcome will not be explicitly cited in the problem signals you receive, but must be inferred from them. Problem signals may specify some of the factors that contribute to a problem (causes) or some of the possibilities for trying to alleviate it (solutions) rather than the particular student outcomes themselves. However, problem definitions should not simply specify the most likely cause of the problem or the most promising solution. Well-defined problem statements must indicate the existing and desired levels of a particular student outcome, so that the discrepancy between them can eventually be validated.

The tendency to jump to specifying solutions at this stage is common. School people face many problems and, consequently, often complain, "Don't just tell me what's wrong, tell me what to do about it!" This is a legitimate request. However, proposals for instructional improvements often do not make it clear what problems they will help to solve. Many people have strong biases for particular solutions and will readily advocate them for almost any problem. Likewise, certain innovations create a "bandwagon effect," that is, an innovation that has worked well in some schools will be readily adopted by other school districts, even though the problem for which it is an appropriate solution may not be a problem that these other school districts have.

Here are some examples of "problems" which are really "solutions in disguise":

Our schools need a reduced pupil-teacher ratio.

Our schools need differentiated staffing.

Our schools need more money.

Our schools need better communication with the community.

Our schools need individualized instruction.

Or, even more specifically:

Our schools need Individually Prescribed Instruction[1] (a particular program for individualizing instruction).

Our schools need Minicourses (a particular kind of teacher training program).

Our schools need Science Curriculum Improvement Study[2] (a particular science program).

Under certain conditions, one of these solutions might be exactly what the school district needs to solve its problem(s). Unfortunately, it is impossible to determine the merits of proposed solutions unless the problem(s) they are meant to solve have been clearly specified.

Here is an example which illustrates the usefulness of specifying the problem before you specify a solution you think desirable:

Mr. Carlton, the superintendent of a small unified school district in the Midwest, attends a conference in which Individually Prescribed Instruction (IPI) is described. He is eager to individualize instruction in his district and also to improve the math program. He states his problem as:

"Our district needs to adopt the IPI math program."

When he begins to estimate the feasibility of solving this problem, i.e., the feasibility of adopting IPI, he discovers that the cost per student for IPI math is ten times the cost of the present math program. Unhappily he concludes that, until some extra money comes his way, he has a problem that cannot be solved.

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[1] Learning Research and Development Center, University of Pittsburgh, and Research for Better Schools, Inc., Philadelphia, Pa., Individually Prescribed Instruction. New York: Appleton-Century-Crofts.

[2] Lawrence Hall of Science, University of California, Berkeley, Science Curriculum Improvement Study. Chicago: Rand McNally & Co.

However, Mr. Carlton might have stated his problem as,

> "We want to increase student achievement in math."

Then a variety of solutions, including but not limited to IPI math, would be applicable. Or he might have stated the problem so that a particular class or type of solution was implied, e.g.,

> "We want to increase student achievement in math by allowing each child to proceed at his own pace and with individualized assistance where needed."

In this case, too, he is not limited to one solution. There may be a whole range of programs for individualizing instruction in mathematics, some less expensive than others. Or there may be techniques by which teachers can provide individualized instruction within the conventional classroom setting. For example, the Minicourse "Individualizing Instruction in Mathematics"[3] trains teachers in techniques by which they can provide more individual attention to students having math problems without changing the instructional materials or class size.

Viewed in this way, Mr. Carlton's problem may be alleviated with a variety of alternative solutions. The value of considering alternatives is that they can be compared on the basis of their cost, their effectiveness, their teacher retraining requirements, staff and community acceptance, and so on. Thus the danger of stating a problem in terms of a particular solution, or even a particular type of solution, is that you thereby decrease the relevant alternatives to be considered in solving the problem.

A similar reduction of alternatives can occur if problems are stated in terms of causes, rather than existing and desired states of student outcome. Consider the following example:

Several administrative staff members of an urban school district are discussing the poor reading skills of many Black children in their district. One staff member insists that Black children have not learned to read better because of the prejudice of teachers. He claims, "Even the ones who aren't out-and-out racists just haven't been trained to deal with Black children." Another staff member counters that parents are largely responsible for their children's poor reading ability, because they do not reinforce their children's learning at home. He claims that "there's a lack of reading matter in the home," that "parents don't read to their children," and that "they just don't value academic achievement." A third staff member maintains that the District's

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[3] Far West Laboratory for Educational Research and Development, Berkeley, California, Minicourse--Individualizing Instruction in Mathematics. Beverly Hills, California: Macmillan Educational Services, Inc., 1971.

reading materials are culturally biased and inappropriate for Black and other minority children. A fourth staff member suggests that the standardized tests used to measure reading achievement are at fault, and that Mexican-American children should be tested in Spanish, Black kids in their dialect, and so on.

Are all four staff members talking about the same problem? At first it does not appear so. However, a concern for the low reading achievement of culturally different children runs through all their comments. If the staff members could all agree that this student outcome is the problem being discussed, they would see that seemingly disparate factors (e.g., racial prejudice of teachers, cultural bias of tests, lack of reading materials in the home) are in fact related, because they are all potential causes of low reading achievement.

Once problems have been defined in terms of the student outcomes involved, school planners can analyze all relevant causal factors, rather than assuming one particular cause and then seeking a solution that is appropriate only to that cause. Most solutions assume certain causes are of primary importance. If school people happen to emphasize the wrong causes of a problem, the solution that they select will probably fail to solve the problem. Therefore, before considering solutions, instructional planners must both analyze the student outcome problems involved and determine the possible causes of those problems.

Module Two Self-Test

This self-test will help you judge how well you understand the process of defining student outcome problems. Suggested Responses are on page 63.

1. It is helpful to apply certain criteria to statements of existing and desired student outcomes to ensure that you have defined them well. Check the four statements in the list that are the best criteria to use in writing well-defined problem statements.

_____ Specify the groups of students involved.

_____ Specify how the problem can be solved.

_____ Specify the financial cost of remedying the problem.

_____ Specify the student behaviors involved.

_____ Specify the curricular or instructional areas involved.

_____ Specify what is causing the problem.

_____ Specify at which grade levels the problem is occurring.

_____ Specify how other schools are handling this problem.

2. Below is a list of problem statements representing various degrees of specificity. Four of the problem statements are too specific and thereby exclude from analysis many related student behaviors that probably contribute to a more general problem. Four of the problem statements are too broad and thereby include several student outcome problems that may occur independently of one another and should be analyzed separately. The remaining four statements are of proper scale for problem analysis. Put an S in front of the statements that you think are too specific, a B in front of those that you think are too broad, and a P in front of those that you think are of proper scale.

____ a. The curricular offerings that students can presently choose from are irrelevant; students should be offered more relevant courses.

____ b. Too many high school girls have been wearing see-through blouses and similar attire to class; girls in suggestive apparel should be sent home from school.

____ c. Students' knowledge of 20th century poetry is not being adequately tested in 11th grade English literature; we need to develop new tests, appropriate for high school juniors, that will test their understanding of contemporary forms of poetry.

____ d. Students here are very negative toward school; they should have better attitudes.

____ e. The district maintenance crew complains about the untidy state of the school grounds following lunch breaks, particularly on the Union High School campus; students should pick up their own trash at the end of the lunch recess.

____ f. Students at Brookside High School have recently spray-painted radical political sayings on the east wall of the main building; students should be prevented from disfiguring the building in this way.

____ g. Our grammar school graduates do not command an adequate knowledge of English grammar; by the time students complete sixth grade, they should be able to communicate effectively in English, both in written and oral form.

____ h. Students are not really learning anything in our schools; they should be able to retain what they have been taught and apply it in their daily lives.

____ i. The current required reading for junior high English classes is totally irrelevant reading matter for students in an urban district like ours; our junior high school students should be offered readings in literature which are relevant to the world they experience.

____ j. The existing equipment and supplies available to our Art Department limit students to a narrow range of art forms; secondary students who wish to develop their artistic talent must have access to materials required for contemporary art forms, including photography and filmmaking.

____ k. Students do not receive the kind of foreign language instruction they need to develop ability in another language; they need an improved foreign language program.

____ l. Our students presently do not learn about economics in their high school social studies program; they should understand basic economic principles in order to analyze current events in terms of their economic implications.

3. Below and on the next page are three sets of statements; in each set there are four statements that are all related to the same student outcome problem. One statement in each set refers to the existing state of the problem, one to the desired state of the problem, and one to a potential solution to the problem. For each set, decide which statement refers to an existing state, which to a desired state, which to a cause, and which to a solution, and check the appropriate column.

Set One	Existing State	Desired State	Cause	Solution
a. Our elementary students should be exposed to aesthetic activities such as art, music, and drama, both through observation and in classroom work, in order to develop appreciation for the fine arts.	____	____	____	____
b. The district should purchase new art and music supplies for the elementary schools, so that students will be able to engage in a variety of aesthetic activities in their classrooms.	____	____	____	____
c. Our elementary teaching staff lacks training in fine arts.	____	____	____	____
d. Our elementary students do not receive sufficient exposure to a variety of aesthetic activities.	____	____	____	____

Set Two	Existing State	Desired State	Cause	Solution
e. Our elementary science program must be revised to include a lengthier and more effective unit on health and nutrition.	____	____	____	____
f. Our students should be knowledgeable about the steps they can take to ensure that they keep their bodies healthy and well nourished.	____	____	____	____
g. Our students are not well informed about their bodies' requirements for good health and nutrition.	____	____	____	____
h. Our students are learning improper health and dietary habits from their parents.	____	____	____	____

* * * * *

Set Three	Existing State	Desired State	Cause	Solution
i. Advice to students on how to improve their study habits has only been provided by our high school teaching staffs to individual students on a haphazard basis.	____	____	____	____
j. Most high school students do not know how to study effectively for their academic courses.	____	____	____	____
k. Our district should institute an orientation program for entering high school sophomores that would acquaint them with good study habits, including various note-taking methods, proper study conditions, and library skills.	____	____	____	____
l. Students must acquire effective study habits by the time they begin high school.	____	____	____	____

4. Below are some statements of potential causes which might contribute to particular student outcome problems and of potential related solutions which might alleviate those problems. Below each cause and its related solution write a statement of the student outcome problem that might be involved.

   a. Potential Cause: Our teachers have unfavorable stereotypes of culturally different children and lower expectations for their academic achievement.

      Potential Solution: Our teachers should be given training and encouragement to develop greater understanding of the experiences and cognitive styles of culturally different children.

   b. Potential Cause: Our vocational training equipment is antiquated and the staff lacks expertise in training for new occupations created by modern technology.

      Potential Solution: We must institute a work-study program in cooperation with local businesses to prepare our students for entry into high-need occupations.

   c. Potential Cause: Parents have failed to inform their children about human sexual behavior and the responsibilities of marriage and parenthood.

      Potential Solution: We must implement a comprehensive K-12 sex and family life instructional program.

d. Potential Cause: The instructional materials employed in our high school social studies courses are irrelevant to the world our students live in.

Potential Solution: Our high school social studies curriculum must be revised to concentrate on current political and social events.

Student Outcome Problem: _____

_____

_____

_____

_____

Suggested Responses

for Module Two Self-Test

Please do not refer to the Suggested Responses until you have attempted all the items on the Self-Test.

1. It is helpful to apply certain criteria to statements of existing and desired student outcomes to ensure that you have defined them well. Check the four statements in the list that are the best criteria to use in writing well-defined problem statements.

___✓___ Specify the groups of students involved.

_____ Specify how the problem can be solved.

_____ Specify the financial cost of remedying the problem.

___✓___ Specify the student behaviors involved.

___✓___ Specify the curricular or instructional areas involved.

_____ Specify what is causing the problem.

___✓___ Specify at which grade levels the problem is occurring.

_____ Specify how other schools are handling this problem.

2. Below is a list of problem statements representing various degrees of specificity. Four of the problem statements are too specific and thereby exclude from analysis many related student behaviors that probably contribute to a more general problem. Four of the problem statements are too broad and thereby include several student outcome problems that may occur independently of one another and should be analyzed separately. The remaining four statements are of proper scale for problem analysis. Put an S in front of the statements that you think are too specific, a B in front of those that you think are too broad, and a P in front of those that you think are of proper scale.

B a. The curricular offerings that students can presently choose from are irrelevant; students should be offered more relevant courses.

S b. Too many high school girls have been wearing see-through blouses and similar attire to class; girls in suggestive apparel should be sent home from school.

S c. Students' knowledge of 20th century poetry is not being adequately tested in 11th grade English literature; we need to develop new tests, appropriate for high school juniors, that will test their understanding of contemporary forms of poetry.

B d. Students here are very negative toward school; they should have better attitudes.

S e. The district maintenance crew complains about the untidy state of the school grounds following lunch breaks, particularly on the Union High School campus; students should pick up their own trash at the end of the lunch recess.

S f. Students at Brookside High School have recently spray-painted radical political sayings on the east wall of the main building; students should be prevented from disfiguring the building in this way.

P g. Our grammar school graduates do not command an adequate knowledge of English grammar; by the time students complete sixth grade, they should be able to communicate effectively in English, both in written and oral form.

B h. Students are not really learning anything in our schools; they should be able to retain what they have been taught and apply it in their daily lives.

P i. The current required reading for junior high English classes is totally irrelevant reading matter for students in an urban district like ours; our junior high school students should be offered readings in literature which are relevant to the world they experience.

___A___ j. The existing equipment and supplies available to our Art Department limit students to a narrow range of art forms; secondary students who wish to develop their artistic talent must have access to materials required for contemporary art forms, including photography and filmmaking.

___B___ k. Students do not receive the kind of foreign language instruction they need to develop ability in another language; they need an improved foreign language program.

___D___ l. Our students presently do not learn about economics in their high school social studies program; they should understand basic economic principles in order to analyze current events in terms of their economic implications.

3. Below and on the next page are three sets of statements; in each set there are four statements that are all related to the same student outcome problem. One statement in each set refers to the existing state of the problem, one to the desired state of the problem, and one to a potential solution to the problem. For each set, decide which statement refers to an existing state, which to a desired state, which to a cause, and which to a solution, and check the appropriate column.

Set One	Existing State	Desired State	Cause	Solution
a. Our elementary students should be exposed to aesthetic activities such as art, music, and drama, both through observation and in classroom work, in order to develop appreciation for the fine arts.	___	✓	___	___
b. The district should purchase new art and music supplies for the elementary schools, so that students will be able to engage in a variety of aesthetic activities in their classrooms.	___	___	___	✓
c. Our elementary teaching staff lacks training in fine arts.	___	___	✓	___
d. Our elementary students do not receive sufficient exposure to a variety of aesthetic activities.	✓	___	___	___

Set Two	Existing State	Desired State	Cause	Solution
e. Our elementary science program must be revised to include a lengthier and more effective unit on health and nutrition.				✓
f. Our students should be knowledgeable about the steps they can take to ensure that they keep their bodies healthy and well nourished.		✓		
g. Our students are not well informed about their bodies' requirements for good health and nutrition.	✓			
h. Our students are learning improper health and dietary habits from their parents.			✓	

* * * * *

Set Three	Existing State	Desired State	Cause	Solution
i. Advice to students on how to improve their study habits has only been provided by our high school teaching staffs to individual students on a haphazard basis.			✓	
j. Most high school students do not know how to study effectively for their academic courses.	✓			
k. Our district should institute an orientation program for entering high school sophomores that would acquaint them with good study habits, including various note-taking methods, proper study conditions, and library skills.				✓
l. Students must acquire effective study habits by the time they begin high school.		✓		

4. Below are some statements of potential causes which might contribute to particular student outcome problems and of potential related solutions which might alleviate those problems. Below each cause and its related solution write a statement of the student outcome problem that might be involved.

a. Potential Cause: Our teachers have unfavorable stereotypes of culturally different children and lower expectations for their academic achievement.

Potential Solution: Our teachers should be given training and encouragement to develop greater understanding of the experiences and cognitive styles of culturally different children.

Student Outcome Problem: *Culturally different children do not achieve as well as other children in traditional school programs; their achievement level should be brought up to that of their classmates.*

b. Potential Cause: Our vocational training equipment is antiquated and the staff lacks expertise in training for new occupations created by modern technology.

Potential Solution: We must institute a work-study program in cooperation with local businesses to prepare our students for entry into high-need occupations.

Student Outcome Problem: *A majority of our students desire vocational training, but the high school curriculum emphasizes academic coursework; students should be prepared to obtain jobs upon graduation.*

c. Potential Cause: Parents have failed to inform their children about human sexual behavior and the responsibilities of marriage and parenthood.

Potential Solution: We must implement a comprehensive K-12 sex and family life instructional program.

Student Outcome Problem: *Students are not being well prepared to assume the responsibilities of marriage and parenthood; students should be knowledgeable about human sexual behavior, family planning, child development, and household budgeting.*

d. Potential Cause: The instructional materials employed in our high school social studies courses are irrelevant to the world our students live in.

Potential Solution: Our high school social studies curriculum must be revised to concentrate on current political and social events.

Student Outcome Problem: *Our high school students are not well informed about current political and social events and the implications of these events for their lives; students should be able to analyze current events and infer their implications.*

MCUSD NEWS

MCUSD INSTRUCTIONAL PLANNING TEAM IDENTIFIES CRITICAL PROBLEM AREAS

Oct.___ A small group of concerned Mid City teachers and parents attended last night's meeting of MCUSD's newly formed Instructional Planning Team. Over the next several months the planning team will be investigating major problems that inhibit the schools' effectiveness. The planning team reported at last night's meeting on which problems they have decided to investigate.

The team began by saying that their training has cautioned them not to waste time and money trying to look into every complaint and suggestion the District has received, but to screen out those that warrant intensive analysis at a given time.

The IPT has decided to limit its study to "student outcome problems," or deficiencies in the knowledge, skills, attitudes and behaviors that students acquire as a result of their school experiences. They also plan to investigate only problems that appear to be district-wide in scope (rather than those affecting individual schools or classrooms), to long-range concerns (rather than "crises" that require immediate action), and to problems about which significant information has already been received by the District.

The planning team has concluded that five problems now appear significant enough to warrant careful study: Achievement in Basic Skills, Career Information and Guidance, Dropping Out of School, Occupational Skills Training, and Student Dissatisfaction with Curriculum.

When asked by Superintendent Redford to explain the nature of the problems, the team began describing each letter, memo, and article that had "signalled" the existence of these problems. Dr. Redford objected that it would take all night to review all the information that the team has collected, and criticized the team for not being prepared to better communicate their findings.

The District Research Director, who is coordinating an in-service training program for the Instructional Planning Team, explained that the team's next training session will introduce them to techniques for defining problems in terms of existing and desired student outcomes, and that they will be prepared to present a succinct definition of the five problems once they have completed that session.

INSTRUCTIONS FOR FIRST TEAM ACTIVITY

Defining Student Outcome Problems

Assume that your Instructional Planning Team decided that these problem signal categories warrant further analysis: Achievement in Basic Skills, Career Information and Guidance, Dropping Out of School, Occupational Skills Training, and Student Dissatisfaction with Curriculum. As a team you are now going to write definitions for the first two problems by completing these steps:

1. Remove the two copies of Worksheet 2 which follow this page. Use each worksheet to define the problem identified in the upper left-hand corner of the worksheet.

2. Assemble the problem signal cards listed below for each of the problem categories. (These signals are the ones listed on the Suggested Responses for Module One, pages 46-48.) Include any additional signals that your team classified in either of these categories, if you wish. Just be sure to use all the signals listed here, because the Suggested Responses will be based on them.

   ACHIEVEMENT IN BASIC SKILLS: 1, 12, 16, 21

   CAREER INFORMATION AND GUIDANCE: 6, 9, 18, 22, 24

3. Work on one problem at a time. The chairman should lead the team in examining the signal cards for each category to determine what the existing and desired states are for that student outcome problem. Remember that the existing and desired states may be either directly stated or implied. Write the existing state on the left-hand side of Worksheet 2, and the desired state on the right-hand side of the worksheet. These two statements constitute your problem definition.

4. When you have written both problem definitions, review them to make sure that your statements of existing and desired states meet the following criteria, if possible, based on the information available in the problem signals:

   a. The curricular or instructional area involved is specified.

   b. The grade levels of the students involved are specified.

   c. The particular student groups involved are specified.

   d. The student behaviors involved are specified.

5. Feel free to refer to the reading if you need clarification of any of the terminology used in this activity.

AFTER WRITING THE FIRST TWO PROBLEM DEFINITIONS, COMPARE THEM WITH THE SUGGESTED RESPONSES WHICH BEGIN ON PAGE 79.

Problem Signal Category:

ACHIEVEMENT IN BASIC SKILLS

WORKSHEET 2

Defining Student Outcome Problems

TEAM _____

Existing State of Student Outcome	Desired State of Student Outcome

Problem Signal Category:

CAREER INFORMATION AND GUIDANCE

WORKSHEET 2

Defining Student Outcome Problems

TEAM _____

Existing State of Student Outcome	Desired State of Student Outcome

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Defining Student Outcome Problems

To give you an idea of how well your team defined the first two problems, compare your problem definitions with those suggested following this page. The responses were written by the developers of the training unit to present some possible definitions of the problems, not necessarily "model answers."

For each problem you defined, three examples are provided: one good example that is defined at an appropriate level of specificity, and two poor examples that are defined either too narrowly or too broadly.

The suggested definitions are based on the information in the problem signals listed on page 73. If you included additional problem signals, your team's problem definitions might reflect somewhat different information. If there are any large discrepancies between your team's problem definitions and those suggested here, discuss them with the Coordinator. You may revise your problem definitions, if you wish.

WHEN YOU HAVE FINISHED REVIEWING THE SUGGESTED RESPONSES, PROCEED TO THE SECOND TEAM ACTIVITY BEGINNING ON PAGE 83.

First, here is an example of an appropriate definition of the Achievement in Basic Skills problem:

Existing State of Student Outcome:	Desired State of Student Outcome:
MCUSD students who are deficient in basic skill areas, particularly Black and Mexican-American students, are being improperly placed in EH and EMR classes, and graduated or moved on to the next grade level even though their achievement levels do not meet acceptable standards.	*Reading, communication, and mathematics skills of MCUSD students should be individually diagnosed and developed through use of relevant curriculum methods and materials, beginning in the primary grades, to prepare them to meet the State's minimum proficiency standards for high school graduation.*

The problem signals provide enough information to meet all four criteria for an adequate problem definition: a) the instructional areas involved are reading, language arts, and mathematics; b) the grade levels involved are all grades from primary through senior high school; c) the particular student group involved is low achievers in basic skill areas, including a large proportion of Black and Mexican-American students; and d) the student behaviors involved are reading, communication, and mathematics skills.

This next example, on the other hand, is defined too narrowly:

Existing State of Student Outcome:	Desired State of Student Outcome:
Many MCUSD students are being graduated even though their achievement levels in basic skill areas are far below acceptable standards.	*MCUSD graduating students must be able to prove eighth grade competency in reading and mathematics in order to meet the State's minimum proficiency graduation standards.*

This definition concentrates on the immediate crisis which the district is facing, the State's new minimum proficiency standards for high school graduation. It fails to take a long-range look at the other related aspects of the broader problem signalled, namely, that many students are not developing needed basic skills. If the broader problem is recognized and remedied by the district, then the graduation standards should no longer present a problem either.

You should also avoid stating the problem too broadly, like the following example:

Existing State of Student Outcome:	Desired State of Student Outcome:
Many MCUSD students are deficient in basic skill areas.	*Achievement of MCUSD students in basic skill areas must be improved.*

This definition indicates neither how deficient students are nor a desired level of achievement (e.g., the minimum proficiency standards set by the State), which would make it difficult to determine the extent of the discrepancy between the existing and desired states.

Now look at this example of an appropriate definition of the Career Information and Guidance problem:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD's non-college-bound high school students are not well informed nor adequately counselled concerning job trends, high-need occupations, training requirements for various jobs, and post-high-school training opportunities.	*MCUSD students who are approaching the end of their school career and preparing to enter the job market should have access to counselling services and up-to-date information concerning job trends, high-need occupations, and training requirements and opportunities, to assist them in making vocational decisions.*

Again, all four criteria for an adequate problem definition can be met: a) the curricular area is vocational guidance; b) the grade levels involved are the high school grades; c) the particular student group involved is non-college-bound students, especially those nearing graduation; and d) the student behavior involved is knowledge of prospective job and occupational training opportunities.

This definition of the problem implied by the signals is too narrow:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD high school students are not receiving the vocational guidance services they need.	*Vocational test administration and interpretation, and job placement services must be made available to MCUSD high school students.*

This definition focuses on only two of the most neglected aspects of the vocational guidance problem, rather than the broader problem of students' inability to make sound vocational decisions. Even if vocational test administration and job placement services were made available to students, they may still have difficulty making vocational decisions because of the inadequacy of other vocational guidance services which are excluded by this narrow definition of the problem.

The problem is defined too broadly in this example:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD students receive an inadequate vocational education.	*MCUSD students need to be prepared for the world of work.*

This definition is much too vague and doesn't sufficiently limit the area of investigation. Too many problems for which different solutions would be required are all implied by this definition. In addition to inadequate vocational information and guidance services, problems in the areas of job training and even career planning for college-bound students can be inferred from this definition.

INSTRUCTIONS FOR SECOND TEAM ACTIVITY

Defining Student Outcome Problems

As a team you will now write problem definitions for the remaining three problem signal categories: Dropping Out of School, Occupational Skills Training, and Student Dissatisfaction with Curriculum.

1. Proceed as you did with the first two problems to write problem definitions for each of the remaining problems, using the appropriate copies of Worksheet 2 which follow this page.

2. Use the problem signals listed below for each of the problem categories, as well as any additional signals you may wish to include:

   DROPPING OUT OF SCHOOL: 4, 6, 20, 35, 36

   OCCUPATIONAL SKILLS TRAINING: 9, 10, 13, 15, 27, 29, 31, 34, 36

   STUDENT DISSATISFACTION WITH CURRICULUM: 2, 5, 11, 23, 25, 28, 30, 32

WHEN YOU HAVE WRITTEN ALL THREE PROBLEM DEFINITIONS, COMPARE THEM WITH THE SUGGESTED RESPONSES WHICH BEGIN ON PAGE 91.

Problem Signal Category:

DROPPING OUT OF SCHOOL

WORKSHEET 2

Defining Student Outcome Problems

TEAM _____

Existing State of Student Outcome	Desired State of Student Outcome

Problem Signal Category:

OCCUPATIONAL SKILLS TRAINING

WORKSHEET 2

Defining Student Outcome Problems

TEAM _____

Existing State of Student Outcome	Desired State of Student Outcome

Problem Signal Category:

STUDENT DISSATISFACTION
WITH CURRICULUM

WORKSHEET 2

Defining Student Outcome Problems

TEAM _____

Existing State of Student Outcome	Desired State of Student Outcome

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Defining Student Outcome Problems

First, let's review some examples of definitions of the Dropping Out of School problem. Here is an appropriate definition:

Existing State of Student Outcome	Desired State of Student Outcome
A steadily growing number of MCUSD's high school students, mostly boys, have been dropping out of school prior to completion of the twelfth grade.	*MCUSD's low-achieving high school students must receive guidance in vocational preparation to prevent them from becoming drop-outs, and students who have already dropped out of school should be re-educated and re-trained by the district.*

The four criteria for an adequate problem definition are specified as follows: a) the problem is linked to the instructional area of vocational guidance; b) the grade level involved is senior high school; c) the particular student group involved is low-achieving students, primarily boys; and d) the student behavior implied is dropping out.

Now look at this example that is defined too narrowly:

Existing State of Student Outcome	Desired State of Student Outcome
A total of 189 boys and girls dropped out of MCUSD high schools during the last school year.	*Students who have dropped out of MCUSD high schools during the past year must be re-educated and re-trained by the district.*

This definition concentrates on only that aspect of the problem for which federal funds have just been received, that is, re-training of students who have already dropped out. The long-range interests of the district should be considered by analyzing the related issue of preventing additional students from becoming drop-outs.

The following example is defined too broadly:

Existing State of Student Outcome	Desired State of Student Outcome
Many MCUSD students are dropping out of high school.	*MCUSD students must be prevented from dropping out of high school.*

You should avoid simply stating the desired state as the reverse of the existing state. Rather, attempt to specify in positive terms the student outcomes that are desired by the district.

This is an appropriate definition of the Occupational Skills Training problem:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD's non-college-bound secondary students are receiving over-generalized and obsolete job training which does not adequately prepare them to compete in the highly specialized and skilled national and state labor markets.	*MCUSD's non-college-bound secondary students should receive intensive training in specialized occupational skills, with emphasis on using community businesses, industries and craftsmen as training resources, so they will qualify for skilled jobs upon graduation.*

This definition meets all four criteria: a) the curricular area involved is vocational education; b) the grade levels involved are the secondary grades; c) the particular student group involved is non-college-bound students; and d) the student behavior involved is development of job skills.

This example is too narrowly defined:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD non-college-bound students are inadequately trained for the occupations needed by local firms.	*MCUSD's non-college-bound secondary students should develop skills in the following areas: aircraft work, dry cleaning, electronics, machine shop operation, refrigeration, offset printing, automotive repair, electrical repair, food store operation, power sawing, and welding.*

Limiting the problem to development of job skills needed by local firms is not in the best interests of MCUSD's students. If the district decision makers focus their attention on this aspect of the problem only, they may erroneously decide that the occupational skills training problem is not very serious because, for example, students may not be very interested in seeking jobs locally.

This next example is, on the other hand, too broadly defined:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD's students are not prepared to land jobs.	*MCUSD's students must be better prepared to land jobs.*

This vague problem definition could be interpreted to include problems other than those which were signalled, such as inability of students to find temporary after-school and summer employment. And again, the desired student outcome is simply stated as the reverse of the existing student outcome, and gives no concrete idea of what is meant by being "better prepared."

Here are some examples of definitions of the Student Dissatisfaction with Curriculum problem. First, an appropriate example:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD's junior and senior high school students, particularly Blacks and Mexican-Americans, view the present social science program as uninteresting and irrelevant to contemporary social problems which they experience outside of school.	*MCUSD's secondary students need more meaningful learning experiences, including a revised social studies curriculum to help them understand the historical contributions of Blacks and Mexican-Americans, analyze contemporary social problems, and develop abilities necessary to solve these problems.*

The four criteria for an adequate problem definition are met as follows: a) the curricular area is social studies; b) the grade levels are junior and senior high school; c) Black and Mexican-American students are the groups most particularly involved; and d) the student behavior is interest in their studies.

The following example is too narrowly defined:

Existing State of Student Outcome	Desired State of Student Outcome
Black and Mexican-American students at MCUSD high schools find the present social science curriculum irrelevant to their feelings and desires.	*All MCUSD students need to understand the contributions that Blacks, Mexican-Americans, and other "minority groups" have made to U.S. history.*

Although this example meets all the criteria for an adequate problem definition, it is too narrow given the problem signals that you were asked to work with. The signals indicate lack of interest in the present curriculum on the part of all secondary students, not just Blacks and Mexican-Americans. Besides, it would be more efficient to gather information about all aspects of student dissatisfaction with the secondary social studies curriculum at once.

This final example is defined too broadly:

Existing State of Student Outcome	Desired State of Student Outcome
MCUSD secondary students are not interested in school.	*MCUSD secondary students should receive more relevant learning experiences.*

The problem defined here, student attitudes toward school, is a more comprehensive issue than was explicitly dealt with in the problem signals. Although it may prove to be valid, it would be more expeditious to limit the investigation at this time to dissatisfaction with the social studies curriculum. Even if the problem signals had explicitly mentioned student dissatisfaction with the whole school program, it would be best to define several separate problems since the various aspects of the problem would probably be neither all valid nor equally serious.

REMEMBER THAT DEFINING PROBLEMS IS NOT A "ONCE AND FOR ALL" TASK. AS ADDITIONAL INFORMATION IS GATHERED ABOUT EACH OF THESE PROBLEMS, THE DEFINITIONS CAN PROBABLY BE REWRITTEN TO SPECIFY THE FOUR CRITERIA MORE PRECISELY.

Module Three

WHAT ADDITIONAL INFORMATION IS NEEDED?

Overview

By now you have learned to define alleged instructional problems in terms of the existing and desired student outcomes. But you cannot decide which problems most deserve attention unless you have enough information about them. Module Three will help you determine whether the information you have received through problem signals is adequate for analyzing the problems.

This module will introduce you to the concepts of validity and seriousness of problems, and to six criteria that you will later use to judge validity and seriousness. During this module your Instructional Planning Team will use these criteria to summarize the information in the problem signals. Then for each problem you will identify the criteria about which you need to collect additional information before you can judge the validity and seriousness of the problems.

When you have completed Module Three you should be able to:

1. Identify correct definitions of validity and seriousness of problems.
2. Identify items of information that are useful for determining validity of problems.
3. Discriminate items of information that pertain to each of six criteria that are useful for determining seriousness of problems.
4. Summarize the available information about a problem, by identifying items of information pertinent to each of the criteria that determine seriousness of problems.
5. Judge the adequacy of the available information pertinent to each of the criteria.

I. Collecting "The Best Information"

By now you have defined some student outcome problems that were implied by the problem signals that you received. You probably realize that the information you have about some of the problems is too sketchy to allow you to define them accurately, much less judge their validity and seriousness. But realizing the inadequacy of the information is not enough to prepare you to gather better information.

Suppose you need more information about vocational education in order to decide whether your school district has a problem in this area and, if so, how serious it is. You might think of several methods of collecting more information about vocational education, such as interviews of high school students, a questionnaire survey of local employers, a follow-up study of the employment status of graduates who took vocational courses, or consulting official tables of employment trends in various occupational areas.

No matter which method you choose, you run the risk of receiving incomplete or inappropriate information. Each of these methods is appropriate under some circumstances and inappropriate under others. Although you may prefer certain information collection methods, no given method, or combination of methods, will give you "the best information," in all cases. The key to the problem lies in the phrase, "the best information." You can only judge the worth of information collected in relation to the specific type of information you are seeking. Therefore, you can only judge the appropriateness of a method of collecting information in terms of how well it can provide the type of information you need.

You must first decide what would be "the best information" about the problem that you are trying to analyze. Then you can select appropriate information collection methods. For example, interviewing high school students may be an appropriate method of collecting information about how many students desire vocational training and the vocational courses they would like the schools to offer, but not for collecting information regarding projected employment trends.

Three points to keep in mind are:

1. You must first determine what types of information you need, before you can determine what information collection method or methods to use.

2. There is no one best method of collecting information about a problem. Several methods may be useful.

3. It will rarely be possible to get all the information you want, because of constraints such as availability of information, costs of retrieving it, and time required for collecting and analyzing it.

However, stating your information needs is a means of specifying your objectives for gathering information, and later enables you to evaluate how well the information you collect achieves those objectives.

II. Information Needed to Determine Validity of Problems

The most essential type of information that you will want is proof that the problems you are analyzing are valid for your district. A valid problem is one for which the existence of a discrepancy between the existing state of student outcome and the desired state has been objectively verified. If you discover that a problem is not valid for your district, then you can avoid wasting further resources on its analysis. In fact, in situations where you have reason to question the validity of a problem that has been signalled, proof of validity may be the only type of information that you may gather initially. Then, only if the information collected validates the problem would you proceed to collect additional information to determine its seriousness.

The importance of initially defining problems in terms of the existing and desired states has been stressed because it expedites the subsequent validation process. When defining problems, often you can only specify the existing and desired states in general terms, because the information you initially receive is inadequate. However, when validating problems, it is necessary that the existing and desired states be specified precisely. This usually means that you must gather additional information about the problem:

1. You must have information that assesses the existing state of the student outcome. In order to validate the existing state of a problem concerning "unfavorable student attitudes toward school," for example, information would be needed that indicates the degree to which the present attitudes of students toward school are unfavorable, according to the particular indicator or measure selected. The existing state, "unfavorable student attitudes toward school," is ambiguous--different people may interpret it to mean many different things. To validate an ambiguous problem such as this, you must gather information that covers a broad range of possible interpretations of the existing state. You can then determine which interpretations are supported by the evidence and redefine the problem more precisely. If, however, the existing state had initially been defined in more precise terms, such as "student dissatisfaction with irrelevance of existing curriculum," the type of information needed to validate the existing state would be much narrower in scope.

2. You must also have information that assesses the desired state of student outcome. Assessment of desired states generally involves measuring subjective values and opinions of school-related groups, rather than objective facts. As with existing states, you must often gather information that will enable you to define the desired state more precisely, rather than simply to assess the desired state as initially defined. Whenever possible, collect information that specifies the desired state in the same terms as the existing state. This makes it easier to measure the discrepancy between existing and desired states. For example, if students' existing satisfaction with curriculum is measured on a 7-point rating scale and found to average 3.0, or "somewhat dissatisfied," then an assessment of the desired state should try to determine what an acceptable rating on that scale would be.

III. Information Needed to Determine Seriousness of Problems

The final step or decision point in the process of analyzing problems is to determine the seriousness of problems that have been found valid. Problems differ considerably in their seriousness, that is, in how important it is for the schools to deal with them. Many different factors influence how important it is for the schools to deal with particular problems. Therefore, to make sound decisions about which problems are most serious for your schools, you need information that allows you to judge their seriousness against a variety of criteria.

Here are several criteria that you will be using during this training unit to determine the seriousness of problems:

1. HOW LARGE IS THE DISCREPANCY BETWEEN THE EXISTING AND DESIRED STATES?

2. WHAT PROPORTION OR NUMBER OF STUDENTS, OR OF PARTICULAR GROUPS OF STUDENTS, IS AFFECTED BY THE PROBLEM?

3. HOW IMPORTANT IS THE PROBLEM TO SCHOOL-RELATED GROUPS?

4. WHAT ARE THE FINANCIAL COSTS OF THE EXISTENCE OF THE PROBLEM?

5. WHAT RELATED PROBLEMS MAY BE ALLEVIATED IF THE PROBLEM IS SOLVED, OR AGGRAVATED IF THE PROBLEM REMAINS UNSOLVED?

6. HOW SOON IS ACTION ON THE PROBLEM REQUIRED?

You will base your plan for collecting additional information about a problem on the criteria about which you need more information. Each of the six criteria is explained below.

1. How large is the discrepancy between the existing and desired states? Generally, the information that you obtain to assess the validity of a problem will be appropriate for this criterion. To be adequate, however, the information about the existing and desired states should be specified in the same terms, so that it will be possible to compare them. Information that simply confirms a valid discrepancy between the existing and desired states, or indicates that the existing state is not satisfactory, will not adequately meet this criterion. The information must indicate "how large" the discrepancy is, or "how much" improvement is needed.

Here are examples of adequate information about the size of the discrepancy (the problem statements and information are abbreviated here):

Problems	*Adequate Information*
Students do not have sufficient independent study time during school hours.	*Students currently have an average of 40 minutes of study time per day; an equivalent of two class periods (50 minutes each) is considered desirable.*
More student participation in school decision making should be permitted.	*Currently, the only decision-making body in which students hold seats is the student-elected Student Body Senate which administers all extra-curricular activities; student participation is also desired in curriculum selection, teacher evaluation, and setting of school regulations.*

2. What proportion or number of students, or of particular groups of students, is affected by the problem? If all other things are equal, problems that affect the greatest number of students are the most serious. However, if a large proportion of a certain group of students is affected, the problem might be judged extremely serious even though that group of students is a numerical minority within the entire student population. Some groups of students that might be peculiarly affected include students at certain grade levels, attending certain schools, or enrolled in certain programs, particular ethnic groups, or different ability groups. Sometimes the information that is collected to determine the size of the discrepancy between the existing and desired states will be stated in terms of the number of students having the problem. In this case, the same information should prove adequate for both criterion 1 and criterion 2.

These are examples of adequate information about the number of students affected:

Problems	*Adequate Information*
There are too many unwanted pregnancies among high school girls.	*During the last academic year, 24 girls dropped out of high schools in the district due to pregnancy.*
Students who are having difficulty learning to read are not getting the individual help with their reading problems that they need.	*Twenty-six percent of the third-graders and thirty-four percent of the sixth-graders tested in the district last year were reading below grade level.*

3. How important is the problem to school-related groups? "School-related groups" refers to parents, students, administrative and teaching staff, educational officials, community interest groups, or any other groups of people to whom the school district's activities are a pertinent concern. The "importance" of a problem refers not only to how many people are concerned about the problem, but to whether the problem is of major concern to them. Adequate information about this criterion must, therefore, include both the number of people who judge the problem to be important, and the intensity of their judgments.

   Rarely would it be feasible to gather information about the opinions of all school-related groups. Adequate information more often includes data from selected groups whose opinions seem most relevant to the problem being analyzed.

   To improve communication between school people and members of these groups, it is advisable to obtain information directly and forego intermediaries (e.g., rather than ask teachers how they think their students feel about a problem, ask the students themselves). Also, if opinion data is gathered systematically, the disparity between how members of school-related grops actually feel about a problem and how school people think they feel should be reduced.

Here are examples of adequate information about the importance of the problem to school-related groups:

Problems	*Adequate Information*
Students need to develop a greater appreciation of the fine arts.	*Thirty percent of students sampled in grades 7-9, and twenty-two percent of students in grades 10-12, said they would be interested in taking art or music appreciation classes, if they were offered on an elective basis; "developing an appreciation for how great art, music, and literature enriches human lives" was ranked 27th out of 40 items on a needs assessment questionnaire administered to a sample of 320 parents.*
The ability of Mexican-American elementary students to speak and read English lags two or three years behind that of their classmates by the time they reach sixth grade.	*"Improvement of communication skills" was the number one priority on a list of recommendations presented to the school board by a 14-member parents' committee representing the Mexican-American community in the city; the district's 28 supervising elementary teachers told interviewers that the low achievement of their Mexican-American pupils in all learning activities that are heavily dependent on language was "one of the schools' most pressing problems."*

4. What are the financial costs of the existence of the problem? Adequate information here should specify the kinds of things for which money is currently being allocated that would be saved if the problem were solved. You might consider not only direct costs to the school district, but also more indirect costs to the larger society. Actual cost estimates, if obtainable, will help you judge the seriousness of the problems, but they are not always essential.

Examples of adequate information about the financial costs of the problem might be:

Problems	*Adequate Information*
Low reading achievement among elementary students.	*The district currently spends $76,000 for its remedial reading program; this includes the salaries of five reading specialists and the purchase of special reading materials to substitute for those which the state has already purchased for these same youngsters.*
Non-college-bound students do not possess job skills when they graduate from high school.	*The state has budgeted over $800,000 this year to provide retraining programs for unemployed people who lack marketable job skills which they could have developed in high school vocational training programs.*

5. What related problems may be alleviated if the problem is solved, or aggravated if the problem remains unsolved? Certain student outcome problems appear to be related. For example, the students who drop out of school may also be the students who get low grades, who are cited as discipline problems, and so on. Solving any one of these problems (drop-out rate, low achievement, or discipline) may help to alleviate the other related problems. Conversely, failing to solve any of them may aggravate them all. As with financial costs, related problems include not only student outcome problems within the district, but also problems in the larger society.

Examples of adequate information about related problems could be:

Problems	*Adequate Information*
Low reading achievement among elementary students.	*Poor readers in elementary grades tend to become low achievers in most academic subjects in later grades; poor readers have more negative attitudes toward school and higher absenteeism and drop-out rates; many unemployed adults have poor reading ability.*
Students lack knowledge of various drugs they are exposed to and their effects.	*Some students' achievement suffers because their motivation and ability to function in class is impaired by abusive use of drugs; there is a heightened absenteeism rate; students have developed attitudes of distrust toward adults who have been their advisors and teachers (e.g., parents, teachers, counselors), but who do not discuss drugs with them honestly.*

6. How soon is action on the problem required? The seriousness of a problem is partially determined by time limits for taking action. This criterion implies both urgency (either a deadline has been given, or the situation is about to "explode") and pressure on the school district to act on the problem.

These are examples of adequate information about requirements for action:

Problems	*Adequate Information*
Vocationally oriented high school students are required to take too many academic courses that are not relevant to their post-graduation plans.	*A set of demands for revamping the high school curriculum to meet the needs of vocationally oriented students has been presented to the district by a community action group; the group demands that plans for a revised curriculum be announced within two months.*
Poor reading ability of high school students.	*The State Board of Education has issued a directive that, beginning with the next academic year, demonstration of eighth-grade reading proficiency will be a requirement for graduation from high school.*

IV. Determining What Type of Information Must be Collected to Analyze a Problem

Now you are acquainted with several criteria that can be used to determine the types of information you need to analyze the validity and seriousness of problems. Before developing an information collection plan for a problem, review all the information you have already received about that problem. You need not necessarily collect additional information about all the criteria that determine the seriousness of problems, since you will probably already have adequate information about some of these. First, decide for which criteria your information is adequate--then you will have a basis for developing a plan to collect "the best information" about the problem.

There are a number of advantages of using a set of criteria like these to gather information. First, the list of criteria will provide a framework for organizing the information that you collect. Secondly, you will have more complete information about each individual problem and can therefore judge its seriousness better than if you had considered just one or two criteria. Thirdly, you will be able to compare the seriousness of very dissimilar problems more confidently, if you have information on the same general set of criteria by which to judge them.

Module Three Self-Test

Complete this self-test to determine how well you understand the process of determining what information is needed to analyze instructional problems. When you have completed the self-test you may refer to the suggested responses beginning on page 111.

1. A valid problem is (check the one statement below that gives the best definition of this concept):

   _____ any school concern involving one or more student outcomes

   _____ a problem for which the existence of a discrepancy between the existing state and the desired state has been objectively verified

   _____ a message which school people receive from one or more school-related groups which signals the existence of a problem

2. When this training unit refers to the relative seriousness of problems, this means (check the one statement below that gives the best definition of this concept):

   _____ the degree to which it is important for the schools to deal with the problem

   _____ the degree to which the cause(s) of the problem are remediable by school action

   _____ the degree of difficulty involved or anticipated in solving the problem

3. Below is a student outcome problem in the area of DISCIPLINE and CLASSROOM BEHAVIOR, and ten statements about it. Check the statement(s) that you think provide the best evidence concerning the validity of the problem, that is, whether it really exists among the students who attend MCUSD schools.

   Existing State of Student Outcome: MCUSD students, especially boys, are excessively noisy and disorderly in class and, while the condition is not confined to any particular subject matter, it appears to become progressively worse with higher grade levels, from grades K-8.

   Desired State of Student Outcome: General classroom order and less confusion are desired by parents.

___a. Administrative records indicate that "Refusal to follow rules" is the most serious behavior problem affecting classroom activity.

___b. MCUSD teachers of grades 1-8 estimate the mean number of serious discipline problems in their classrooms to be 1.4 (grade 1), 1.5 (grade 2), 2.1 (grade 3), 2.3 (grade 4), 2.2 (grade 5), 4.1 (grade 6), 4.8 (grade 7), and 5.3 (grade 8).

___c. The PTA has formed a special Committee on Student Behavior to help improve MCUSD's behavior problems.

___d. School-community talks to service clubs, PTA and other community groups have demonstrated a great concern about the misbehavior of students in MCUSD schools.

___e. A statewide sample of upper elementary grade teachers did not judge their most difficult classroom situations to be excessive noise and confusion, but rather dealing with tardiness, failure to perform work, rudeness, and failure to follow rules.

___f. The Concerned Teachers Association argues that "overemphasis on classroom control can result in learning conditions that are not optimum."

___g. A state poll of citizens suggests that the marked increase in the failure of tax increase elections is due to parents' "overriding anxiety and, in many cases, anger, over the failure of schools to teach discipline."

___h. Statistics compiled by the Guidance staff indicate that the mean incidence of reported behavior problems and suspensions for grades 7-12 is not unduly high, but it is difficult to specify what level would be "acceptable."

___i. A state pole of citizens suggested that community support for the schools may increase if discipline problems in the schools decrease.

___j. Thirty-eight percent of parents surveyed by MCUSD rated behavior of students in grade 8 "below average"; the percentage of parents rating student behavior in grades 3-7 at this level was in the 20's.

4. Below is a student outcome problem in the area of ENVIRONMENTAL UNDERSTANDING and KNOWLEDGE, and ten statements about it. Check the statement(s) that you think provide the best evidence concerning the validity of the problem, that is, whether it really exists among the students who attend MCUSD schools.

   Existing State of Student Outcome: MCUSD students are not receiving a viable environmental education, and rarely participate in self-initiated educational projects.

   Desired State of Student Outcome: MCUSD students at all grade levels need to develop a greater understanding of man's relationship with his natural and man-made surroundings and should be encouraged through their science courses or better, through an interdisciplinary effort to get and give information about local environmental concerns in a systematic fashion.

   ____a. Passage by the Federal government of the Environmental Education Act has confirmed a national commitment to improvement of the environment.

   ____b. A county-wide survey indicated that only fifteen percent of the teachers in MCUSD are offering instruction on the environment compared to an average of thirty-five percent in other districts in the county.

   ____c. It appears that present and former MCUSD Black students may want the environmental education issue to remain low-priority so that their problems receive greater attention.

   ____d. MCUSD high school teachers think that environmental education would be appropriate for students at all grade levels.

   ____e. MCUSD News recently carried a story on the extracurricular interests of above-average and gifted students. While most were active in sports and the various student organizations and clubs at MCUSD, only ten percent of these students indicated that they had ever participated in programs designed to improve the environment.

   ____f. A county-wide survey indicated that, while environmental film series and field trips are used occasionally in MCUSD, no environmental study units are taught on a regular basis.

   ____g. Applications for federal funds for environmental education projects can be submitted after June 1.

   ____h. Several teachers at Taft High School are advocating a district-wide commitment to programs for the study of the environment.

   ____i. Results of a questionnaire asking teachers to evaluate possible objectives for environmental education show this to be the top-ranked objective: "To develop greater understanding among students of the relation of pollution, population, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment."

   ____j. According to an MCUSD high school teacher in charge of environmental studies, while symbolic protest activities are popular among elementary and high school students, educational and cleanup projects, which have the most direct and positive effect on the community, are "distressingly infrequent" among MCUSD students.

5. Below is a student outcome problem in the area of DRUG EDUCATION, along with six items of information that pertain to it. Each of the six items is pertinent to a different criterion of seriousness. Decide to which of the six criteria that determine seriousness of problems each item of information refers, and write the letter of the appropriate criterion in front of each item of information.

PROBLEM: Student drug users are not receiving through the schools the information and guidance they need for problems associated with drug use.

_____ Counselors report that absenteeism and drop-out rates are higher among student drug users.

_____ A PTA-conducted survey of 100 parents revealed that student drug use is a top priority concern of parents, second only to student disorder and violence on school grounds.

_____ Students estimate that sixteen percent of their classmates in grades 7-9, and thirty-eight percent in grades 10-12, use drugs of some sort on a regular or occasional basis.

_____ The County spends $20,000 a year to staff and supply a Drug Abuse Clinic where young people can seek advice and treatment for drug abuse problems.

_____ State funds to support local drug education training projects can now be applied for if applications are received by January 1.

_____ Out of an estimated 2,500 students in grades 7-12 who use drugs either regularly or occasionally, teachers and counselors report that only 23 students had sought advice on drugs from them in the past year.

Criteria that determine seriousness of problems:

a. How large is the discrepancy between the existing and desired states?

b. What proportion or group of students is affected by the problem?

c. How important is the problem to school-related groups?

d. What are the financial costs of the existence of the problem?

e. What related problems may be alleviated if the problem is solved?

f. How soon is action on the problem required?

6. Below is a student outcome problem in the area of STUDENT VANDALISM, along with six items of information that pertain to it. Each of the six items is pertinent to a different criterion of seriousness. Decide to which of the six criteria that determine seriousness of problems each item of information refers, and write the letter of the appropriate criterion in front of each item of information.

PROBLEM: There have been repeated occurrences of student vandalism, including theft of school property and willful destruction of school facilities.

_____ Secondary teachers rank student vandalism among the eight major problems they encounter; the School Board has asked the district to investigate the "urgent" incidence of vandalism in the schools and to prepare a report with recommendations for bringing the situation under control.

_____ There have been 28 separate incidents of vandalism reported in the district during the past three months; the School Board has urged the district to take measures that will reduce the number of such incidents by at least two-thirds.

_____ The district has three months to submit its investigation report and recommendations to the School Board.

_____ In informal conversations, some high school students have remarked that they think their peers commmit vandalism because they're angry with the schools for not trying to satisfy the needs the students express.

_____ Approximately $4,500 worth of windows have been broken and $8,000 worth of school equipment and supplies stolen over the past six months.

_____ The district office reports that 26 junior and senior high school students have been apprehended while committing acts of vandalism so far this school year; the district office estimates that probably less than 2 percent of the junior and senior high school enrollments are involved.

Criteria that determine seriousness of problems:

a. How large is the discrepancy between the existing and desired states?

b. What proportion or group of students is affected by the problem?

c. How important is the problem to school-related groups?

d. What are the financial costs of the existence of the problem?

e. What related problems may be alleviated if the problem is solved?

f. How soon is action on the problem required?

Suggested Responses

for Module Three Self-Test

Please do not look at the Suggested Responses until you have attempted all the items on the Self-Test.

1. A valid problem is (check the one statement below that gives the best definition of this concept):

   _____ any school concern involving one or more student outcomes

   ___✓___ a problem for which the existence of a discrepancy between the existing state and the desired state has been objectively verified

   _____ a message which school people receive from one or more school-related groups which signals the existence of a problem

2. When this training unit refers to the relative seriousness of problems, this means (check the one statement below that gives the best definition of this concept):

   ___✓___ the degree to which it is important for the schools to deal with the problem

   _____ the degree to which the cause(s) of the problem are remediable by school action

   _____ the degree of difficulty involved or anticipated in solving the problem

3. Below is a student outcome problem in the area of DISCIPLINE and CLASSROOM BEHAVIOR, and ten statements about it. Check the statement(s) that you think provide the best evidence concerning the validity of the problem, that is, whether it really exists among the students who attend MCUSD schools.

   Existing State of Student Outcome: MCUSD students, especially boys, are excessively noisy and disorderly in class and, while the condition is not confined to any particular subject matter, it appears to become progressively worse with higher grade levels, from grades K-8.

   Desired State of Student Outcome: General classroom order and less confusion are desired by parents.

   ✓ a. Administrative records indicate that "Refusal to follow rules" is the most serious behavior problem affecting classroom activity.

   ✓ b. MCUSD teachers of grades 1-8 estimate the mean number of serious discipline problems in their classrooms to be 1.4 (grade 1), 1.5 (grade 2), 2.1 (grade 3), 2.3 (grade 4), 2.2 (grade 5), 4.1 (grade 6), 4.8 (grade 7), and 5.3 (grade 8).

   ___ c. The PTA has formed a special Committee on Student Behavior to help improve MCUSD's behavior problems.

   ___ d. School-community talks to service clubs, PTA and other community groups have demonstrated a great concern about the misbehavior of students in MCUSD schools.

   ✓ e. A statewide sample of upper elementary grade teachers did not judge their most difficult classroom situations to be excessive noise and confusion, but rather dealing with tardiness, failure to perform work, rudeness, and failure to follow rules.

   ___ f. The Concerned Teachers Association argues that "overemphasis on classroom control can result in learning conditions that are not optimum."

   ___ g. A state poll of citizens suggests that the marked increase in the failure of tax increase elections is due to parents' "overriding anxiety and, in many cases, anger, over the failure of schools to teach discipline."

   ✓ h. Statistics compiled by the Guidance staff indicate that the mean incidence of reported behavior problems and suspensions for grades 7-12 is not unduly high, but it is difficult to specify what level would be "acceptable."

   ___ i. A state pole of citizens suggested that community support for the schools may increase if discipline problems in the schools decrease.

   ✓ j. Thirty-eight percent of parents surveyed by MCUSD rated behavior of students in grade 8 "below average"; the percentage of parents rating student behavior in grades 3-7 at this level was in the 20's.

Note: The items that provide quantitative information about the existing and/or desired states (2, 8, 10), or otherwise enable one to evaluate the magnitude of

this problem (1, 5), are most useful for determining validity. The remaining statements are more useful for determining the relative seriousness of the problem. Items 3, 4, and 6 are relevant to the existing and/or desired states but do not state specific levels of student outcome; they would be more pertinent to criterion (c) of seriousness, importance to school-related groups. Item 7 is more pertinent to criterion (d) of seriousness, financial costs of the existence of the problem. Items 6 and 9 pertain to criterion (e) of seriousness, related problems that may be alleviated if the problem is solved.

4. Below is a student outcome problem in the area of ENVIRONMENTAL UNDERSTANDING and KNOWLEDGE, and ten statements about it. Check the statement(s) that you think provide the best evidence concerning the validity of the problem, that is, whether it really exists among the students who attend MCUSD schools.

   Existing State of Student Outcome: MCUSD students are not receiving a viable environmental education, and rarely participate in self-initiated educational projects.

   Desired State of Student Outcome: MCUSD students at all grade levels need to develop a greater understanding of man's relationship with his natural and man-made surroundings and should be encouraged through their science courses or better, through an interdisciplinary effort to get and give information about local environmental concerns in a systematic fashion.

___a. Passage by the Federal government of the Environmental Education Act has confirmed a national commitment to improvement of the environment.

✓ b. A county-wide survey indicated that only fifteen percent of the teachers in MCUSD are offering instruction on the environment compared to an average of thirty-five percent in other districts in the county.

___c. It appears that present and former MCUSD Black students may want the environmental education issue to remain low-priority so that their problems receive greater attention.

___d. MCUSD high school teachers think that environmental education would be appropriate for students at all grade levels.

✓ e. MCUSD News recently carried a story on the extracurricular interests of above-average and gifted students. While most were active in sports and the various student organizations and clubs at MCUSD, only ten percent of these students indicated that they had ever participated in programs designed to improve the environment.

✓ f. A county-wide survey indicated that, while environmental film series and field trips are used occasionally in MCUSD, no environmental study units are taught on a regular basis.

___g. Applications for federal funds for environmental education projects can be submitted after June 1.

___h. Several teachers at Taft High School are advocating a district-wide commitment to programs for the study of the environment.

✓ i. Results of a questionnaire asking teachers to evaluate possible objectives for environmental education show this to be the top-ranked objective: "To develop greater understanding among students of the relation of pollution, population, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment."

✓ j. According to an MCUSD high school teacher in charge of environmental studies, while symbolic protest activities are popular among elementary and high school students, educational and cleanup projects, which have the most direct and positive effect on the community, are "distressingly infrequent" among MCUSD students.

Note: The items that provide quantitative information about the existing and/or desired states (2, 5), or otherwise enable one to evaluate the magnitude of this problem (6, 9, 10), are most useful for determining validity. The remaining statements are more useful for determining seriousness of the problem. Items 1 and 8 are relevant to the desired state but do not reflect the specific level of student outcome that is desired; they are more pertinent to criterion (c) of seriousness, importance to school-related groups. Items 3 and 4 are more pertinent to criterion (b) of seriousness, proportion or type of students affected, as well as criterion (c). Item 7 is more pertinent to criterion (f) of seriousness, how soon action is required.

5. Below is a student outcome problem in the area of DRUG EDUCATION, along with six items of information that pertain to it. Each of the six items is pertinent to a different criterion of seriousness. Decide to which of the six criteria that determine seriousness of problems each item of information refers, and write the letter of the appropriate criterion in front of each item of information.

   PROBLEM: Student drug users are not receiving through the schools the information and guidance they need for problems associated with drug use.

   ___e___ Counselors report that absenteeism and drop-out rates are higher among student drug users.

   ___c___ A PTA-conducted survey of 100 parents revealed that student drug use is a top priority concern of parents, second only to student disorder and violence on school grounds.

   ___b___ Students estimate that sixteen percent of their classmates in grades 7-9, and thirty-eight percent in grades 10-12, use drugs of some sort on a regular or occasional basis.

   ___d___ The County spends $20,000 a year to staff and supply a Drug Abuse Clinic where young people can seek advice and treatment for drug abuse problems.

   ___f___ State funds to support local drug education training projects can now be applied for if applications are received by January 1.

   ___a___ Out of an estimated 2,500 students in grades 7-12 who use drugs either regularly or occasionally, teachers and counselors report that only 23 students had sought advice on drugs from them in the past year.

Criteria that determine seriousness of problems:

a. How large is the discrepancy between the existing and desired states?

b. What proportion or group of students is affected by the problem?

c. How important is the problem to school-related groups?

d. What are the financial costs of the existence of the problem?

e. What related problems may be alleviated if the problem is solved?

f. How soon is action on the problem required?

6. Below is a student outcome problem in the area of STUDENT VANDALISM, along with six items of information that pertain to it. Each of the six items is pertinent to a different criterion of seriousness. Decide to which of the six criteria that determine seriousness of problems each item of information refers, and write the letter of the appropriate criterion in front of each item of information.

PROBLEM: There have been repeated occurrences of student vandalism, including theft of school property and willful destruction of school facilities.

_c_ Secondary teachers rank student vandalism among the eight major problems they encounter; the School Board has asked the district to investigate the "urgent" incidence of vandalism in the schools and to prepare a report with recommendations for bringing the situation under control.

_a_ There have been 28 separate incidents of vandalism reported in the district during the past three months; the School Board has urged the district to take measures that will reduce the number of such incidents by at least two-thirds.

_f_ The district has three months to submit its investigation report and recommendations to the School Board.

_e_ In informal conversations, some high school students have remarked that they think their peers commmit vandalism because they're angry with the schools for not trying to satisfy the needs the students express.

_d_ Approximately $4,500 worth of windows have been broken and $8,000 worth of school equipment and supplies stolen over the past six months.

_b_ The district office reports that 26 junior and senior high school students have been apprehended while committing acts of vandalism so far this school year; the district office estimates that probably less than 2 percent of the junior and senior high school enrollments are involved.

Criteria that determine seriousness of problems:

a. How large is the discrepancy between the existing and desired states?

b. What proportion or group of students is affected by the problem?

c. How important is the problem to school-related groups?

d. What are the financial costs of the existence of the problem?

e. What related problems may be alleviated if the problem is solved?

f. How soon is action on the problem required?

MCUSD NEWS

PLANNING TEAM CAUTIONS DISTRICT TO AVOID HASTY PROBLEM SOLUTIONS

Nov.___ Last night members of the District's Instructional Planning Team described the major instructional problems about which the people of Mid City have been complaining. The Team discussed both existing and desired outcomes for students related to five general areas: Achievement in Basic Skills, Career Information and Guidance, Dropping Out of School, Occupational Skills Training, and Student Dissatisfaction with Curriculum.

The Team has been requested by Superintendent Redford to compare all the information they have accumulated about the five problems and report at the next Board of Education meeting on the relative urgency of the problems, so that the District can begin to plan solutions for the most pressing problems.

The Team chairman cautioned that MCUSD should not rush into considering solutions to the problems until the problems had been thoroughly analyzed. He suggested that it might be "imprudent" to compare the problems only on the basis of the information presently available.

The chairman reminded the group that information which was used to define the five problems had not been gathered by the Team, but had been received by the District from a variety of sources. "Although it looks like we may already have adequate information about Occupational Skills Training and Student Dissatisfaction with Curriculum," he commented, "the information available about the other problems is pretty meager."

He explained that the training course the Instructional Planning Team is taking has pointed out several important criteria that can be used to determine the relative seriousness of problems. "We consider our foremost task now to summarize all the available information according to these criteria, so that we can decide which criteria we need to collect more information about before we can compare the problems."

It was agreed that the Instructional Planning Team's information summaries and their evaluations of the adequacy of the available information for each of the five problems would be shared with the Board at their next regular meeting.

INSTRUCTIONS FOR FIRST TEAM ACTIVITY

Summarizing Available Information

During this module, your team will evaluate the adequacy of the available information for judging the validity and seriousness of the five problems being analyzed. But first the available information about each problem must be summarized in terms of the criteria for determining the seriousness of problems. To save time, some of the information has already been summarized for you. Proceed as follows to summarize the remaining information:

1. First, read the two sample information summaries which follow this page to see how the information about the ACHIEVEMENT IN BASIC SKILLS and OCCUPATIONAL SKILLS TRAINING problems has been summarized. The number(s) of the problem signal(s) from which each statement was derived are indicated in parentheses.

2. After you review the two examples, assemble the problem signal cards that pertain to the remaining three problems:

   CAREER INFORMATION AND GUIDANCE: 6, 9, 18, 22, 24

   DROPPING OUT OF SCHOOL: 4, 6, 20, 35, 36

   STUDENT DISSATISFACTION WITH CURRICULUM: 2, 5, 11, 23, 25, 28, 30, 32

   Feel free to use other signals that your team classified in these categories in addition to those listed here.

3. Remove the copies of Worksheet 3 on pages 127-132, and review the six criteria of seriousness listed along the left-hand side. Refer to pages 99-103 of the reading if you want a fuller explanation of these criteria.

4. Work on one problem at a time. As a team, review the assembled problem signals, and look for all the items of information that pertain to any of the six criteria.

5. Summarize in the appropriate spaces on Worksheet 3 the information pertinent to each criterion.

WHEN YOU HAVE FINISHED ALL THREE INFORMATION SUMMARIES (OR, IF YOU WISH, AS YOU COMPLETE EACH INFORMATION SUMMARY), COMPARE YOUR TEAM COPIES OF WORKSHEET 3 WITH THE SUGGESTED RESPONSES ON PAGES 133-138.

(The Suggested Responses represent only one possible way to summarize the information in the problem signals--your own summaries may be considerably different but just as acceptable. Remember that you might have based your summaries on a slightly different set of problem signals.)

Problem Signal Category:
ACHIEVEMENT IN BASIC SKILLS

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*AFT claims the achievement of culturally different elementary students in basic skill areas lags two to four years behind their classmates (12). High school students claim they have been graduated or passed on to higher grades even though they were deficient in basic skills (16). Elementary students whose achievement in basic skills is low have been assigned to EH and EMR classes (21).*
b. What proportion or group of students is affected by the problem?	*MCUSD's failure to develop proficiency in basic academic skills primarily affects the District's low-achieving student population, both at the elementary (12) and secondary (1, 16) levels. Many of these students are Blacks and Mexican-Americans (1, 12), some of whom have been improperly placed in EH and EMR classes (21).*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*Concern that the schools were not adequately preparing students in basic skills led the State Board of Education to adopt new minimum proficiency graduation standards (1). West Side Coalition criticized the district for graduating students who are not proficient in basic skills (16). Local AFT has called for specialized instructional programs in basic skills for culturally different children (12). Parents have filed a lawsuit against MCUSD for placing their children in EH and EMR classes (21).*
d. What are the financial costs of the existence of the problem?	*High school principals fear the financial stability of the District will be weakened by the unexpected burden of retaining students who do not meet the State's minimum proficiency requirements for graduation but would have been graduated in previous years (1). Parents are suing the district for $40,000 in damages for placing their children in EH and EMR classes (21).*
e. What related problems may be alleviated if the problem is solved?	*High school principals feel the retention rate of high school students is certain to increase once the State Board of Education's new high school graduation standards, requiring eighth grade competency in reading and mathematics, go into effect (1). Unfavorable community reaction to increased failures and retentions of low-achieving students is anticipated (1).*
f. How soon is action on the problem required?	*The State Board of Education's minimum proficiency standard for high school graduation goes into effect beginning next fall(1).*

Problem Signal Category:
OCCUPATIONAL SKILLS
TRAINING

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*County needs assessment report maintains that MCUSD's high school program is academically oriented, although many students are not (29). MCUSD's occupational skills training has been criticized for obsolete equipment (34), over-generalized job preparation rather than intensive concentration on specialized skills (31, 34), no opportunity for application of training (27, 34), gap between present job training and skill demands of existing and expected jobs (10, 13, 34), and absence of school-community cooperation in vocational training (27, 29, 31, 34). Vocational instructors want to provide on-the-job work experience (27), and 2-3 hour skill development courses to replace existing class structure (31).*
b. What proportion or group of students is affected by the problem?	*Non-college-bound high school students are the primary group affected; 65% of Bay County's non-college-bound students are enrolled in MCUSD (29). Vocational teachers have stated that occupational skills training is most needed by 11th and 12th grade students who will soon be completing their education and looking for jobs (31). Many low-achieving students fall into the group needing improved job training (29).*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*70% of MCUSD's secondary teachers view inadequate job preparation as a critical problem (29). Junior and senior high school vocational instructors wish to update MCUSD's job preparation program, by providing extended skill development courses (31), and on-the-job work experience (27). Mid City businessmen claim the District is not providing training for the occupations needed or wanted by their firms (13). The Chamber of Commerce has expressed dissatisfaction with the vocational preparation of MCUSD graduates (10).*
d. What are the financial costs of the existence of the problem?	*The State Department reports that adequate job training by secondary schools could help add $30 million to the State's gross annual earnings, save the State's Unemployment Insurance Fund more than $1 million annually, and save $1 million in public assistance payments (36). Unemployed persons must be supported by public taxes, restrain corporate and individual economic growth, commit extra resources for re-training once employed, and necessitate public expenditures for psychological rehabilitation (15).*
e. What related problems may be alleviated if the problem is solved?	*MCUSD's failure to adequately prepare students to fill the community's occupational needs has created unfavorable attitudes toward the District on the part of Mid City businessmen and industries (10, 13). Unemployed persons often become psychologically distressed and engage in criminal activity to supplement their meager resources (15).*
f. How soon is action on the problem required?	*The District has six months to develop a proposal applying for funds authorized under the new Vocational Education Amendments, for needs surveys, teacher training, instructional projects or construction relevant to vocational education (9).*

Problem Sighted Category:
CAREER INFORMATION AND GUIDANCE

WORKSHEET 3

Summarizing Available Information

Team: _____

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	
b. What proportion or group of students is affected by the problem?	

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	
d. What are the financial costs of the existence of the problem?	
e. What related problems may be alleviated if the problem is solved?	
f. How soon is action on the problem required?	

WHEN YOU HAVE COMPLETED THIS INFORMATION SUMMARY, YOU MAY REVIEW THE SUGGESTED RESPONSES ON PAGES 133-134.

Problem Signal Category:
DROPPING OUT OF SCHOOL

WORKSHEET 3

Team: _____

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	
b. What proportion or group of students is affected by the problem?	

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	
d. What are the financial costs of the existence of the problem?	
e. What related problems may be alleviated if the problem is solved?	
f. How soon is action on the problem required?	

WHEN YOU HAVE COMPLETED THIS INFORMATION SUMMARY, YOU MAY REVIEW THE SUGGESTED RESPONSES ON PAGES 135-136.

Problem Signal Category:
STUDENT DISSATISFACTION
WITH CURRICULUM

WORKSHEET 3

Team: _____

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	
b. What proportion or group of students is affected by the problem?	

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	
d. What are the financial costs of the existence of the problem?	
e. What related problems may be alleviated if the problem is solved?	
f. How soon is action on the problem required?	

WHEN YOU HAVE COMPLETED THIS INFORMATION SUMMARY, YOU MAY REVIEW THE SUGGESTED RESPONSES ON PAGES 137-138.

Problem Signal Category:
CAREER INFORMATION AND GUIDANCE

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*MCUSD counselors and vocational education teachers complain that other duties (e.g., skill instruction, counselling on personal problems) prevent them from providing good career information and guidance, even though they have the information (18). HEW Advisory Council on Vocational Education claims that the vocational guidance schools are presently providing does not correspond to the nation's occupational needs (22). West Side Coalition charges that MCUSD counselors either lack up-to-date vocational information or simply won't pass the information on to students (24).*
b. What proportion or group of students is affected by the problem?	*Potential dropouts (6) and non-college-bound students (6, 24), many of them Blacks and Mexican-Americans, will benefit from improved vocational guidance.*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*A national report (22), vocational education staff at the county level (6), a community action group (24), and many teachers and counselors in MCUSD (18) have advocated changes in the vocational guidance program of MCUSD, including more time and assistance for teachers and counselors to provide career information (18).*
d. What are the financial costs of the existence of the problem?	
e. What related problems may be alleviated if the problem is solved?	*Occupational needs of the nation might be better met because vocational training would be better geared to meeting those needs (22). There might be a lower dropout rate if students received good counselling in vocational preparation (6), making the high school program more relevant to the needs of the non-college-bound student (18).*
f. How soon is action on the problem required?	*The West Side Coalition is demanding action on its grievances (24). Proposals for federal financing of vocational education projects, including needs surveys, staff training, and instruction, must be submitted within six months (9). HEW Advisory Council on Vocational Education claims there is an "urgent need" to get up-to-date comprehensive occupational information into the hands of school counselors to help students make vocational decisions (22).*

Problem Signal Category:
DROPPING OUT OF SCHOOL

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*A consultant reports that the dropout rate in Mid City has increased by 30% in the last two years and is expected to keep rising (20). Principal of Garfield High School reports that Garfield's dropout rate of 60 students per year is indicative of a "significant instructional dilemma" for MCUSD (35). A state study suggests that potential dropouts should be identified and provided with counseling in vocational preparation to prevent them from dropping out (6).*
b. What proportion or group of students is affected by the problem?	*The ratio of boys to girls dropping out is 2 to 1, and the highest incidence occurs at the eleventh grade (20). A state study identified potential dropouts as those who fall in the lowest quarter of their class academically, and who do not participate in extracurricular activities (6).*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*The Special Project Director has suggested forming a dropout study committee composed of representatives of the West Side Coalition, the Chamber of Commerce, and several Mid City manufacturing and industrial firms (4). One MCUSD high school principal calls dropouts "a significant instructional dilemma" for MCUSD (35).*
d. What are the financial costs of the existence of the problem?	*Dropouts who were not prepared for jobs upon leaving high school can cost the State up to $44. each week in unemployment insurance benefits and $170. per month in public assistance payments (36).*
e. What related problems may be alleviated if the problem is solved?	
f. How soon is action on the problem required?	*A consultant and one of MCUSD's high school principals report that the dropout problem is steadily increasing (20, 35).*

Problem Signal Category:
STUDENT DISSATISFACTION
WITH CURRICULUM

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*Many charges have been made that existing curriculum is unrelated to contemporary social problems (11, 23, 30), does not emphasize the concept-inquiry approach to skill development (23, 28), and is boring to students (5, 23, 25, 32). High school and junior high school students have called for the creation of various new courses (28, 32); most frequently mentioned are courses in Black and Mexican-American Studies (2, 11, 25).*
b. What proportion or group of students is affected by the problem?	*MCUSD students of all racial or ethnic groups have expressed dissatisfaction with the present instructional offerings (2, 5, 11, 23, 28, 32). Black and Mexican-American students have particular curricular needs that the District is apparently not meeting (2, 11, 25), and most complaints come from high school and junior high school students (2, 5, 11, 23, 28, 32).*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*Greater course selection is 1 of 6 grievances publicized by the student body and class presidents of MCUSD's 3 high schools (28), and a major issue among junior high school students (32). A multi-racial parents' group has complained that MCUSD's instructional program does not interest their children (5). High school social studies faculty members are seeking funds to purchase new curriculum materials (23). The Afro-American High School Students' Organization has demanded a Black Studies Program (2, 11), and the AFT urges inclusion of the historical role of Blacks and Mexican-Americans in MCUSD's social studies program (25).*
d. What are the financial costs of the existence of the problem?	*High school social studies teachers claim that the District has wasted at least $5,000 on useless curriculum items that do not appeal to students and are requesting that new materials be purchased to replace them (23). Alleged increases in absenteeism due to student disinterest in school (5) would lower the District's ADA and, consequently, result in financial loss to the District.*
e. What related problems may be alleviated if the problem is solved?	*Inclusion of Afro- and Mexican-American history courses in the curriculum might ease tensions between minority students and the schools (2, 11). Increasing rates of tardiness and absenteeism are attributed to students' lack of interest in the instructional program (5). Parents claim their children's apathy toward their classes is causing their grades to fall which in turn causes family dissension (5). Curriculum change in accordance with student interests would provide positive reinforcement to students who wish to participate meaningfully in instructional decision making (2, 11, 28, 32).*
f. How soon is action on the problem required?	*The Afro-American Students' Organization of Mid City made their recommendations for curriculum revision in the form of demands, with regard to which they warn delay will not be tolerated (2). They warn that the schools may be disrupted by more extreme forms of expression if needed new courses are not created (11). The parents' group requested a meeting with school officials "as soon as possible" to discuss their displeasure over their children's lack of interest in the instructional program (5). A journal article claims the gap between existing curriculum and contemporary social problems is increasing, making redesign of the curriculum more difficult day by day (30).*

INSTRUCTIONS FOR SECOND TEAM ACTIVITY

Rating the Adequacy of Available Information

The information available about all five problems has now been summarized according to the criteria that determine seriousness of problems. This will help you to evaluate whether the available information is adequate for judging validity and seriousness of the problems, or whether you need to collect additional information. Complete the worksheet on the next page by following these steps:

1. Assemble the information summaries for all five problems, that is, the team copies of Worksheet 3 and/or the developer written information summaries on pages 123-126 and 133-138.

2. Review the information summaries one at a time. Discuss as a team whether the available information pertinent to each criterion is adequate to help you judge the seriousness of the problem.

3. Have one member of your team record the team's decisions on Worksheet 4, which follows this page. For training purposes, select the most appropriate rating on the 3-point rating scale at the bottom of the worksheet. In the appropriate column opposite each criterion, record a rating of "1" if there is little need for additional information pertinent to the criterion, "2" if there is moderate need for more information, and "3" if there is great need for more information.

WHEN YOU HAVE RECORDED YOUR RATINGS FOR ALL FIVE PROBLEMS ON WORKSHEET 4, EXAMINE THE SUGGESTED RESPONSES ON PAGES 143-148.

WORKSHEET 4

Rating the Adequacy of Available Information*

Team: _____

Criteria of Seriousness	Achievement in Basic Skills Problem	Career Information and Guidance Problem	Dropping Out of School Problem	Occupational Skills Training Problem	Student Dissatisfaction with Curriculum Problem
a. How large is the discrepancy between existing and desired states?					
b. What proportion or number of students, or of particular groups of students, is affected by the problem?					
c. How important is the problem to school-related groups?					
d. What are the financial costs of the existence of the problem?					
e. What related problems may be alleviated if the problem is solved, or aggravated if the problem remains unsolved?					
f. How soon is action on the problem required?					

*Rating Scale: 1= little need for more information
2= moderate need for more information
3= great need for more information

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Rating the Adequacy of Available Information

To give you an idea of how well your team rated the adequacy of the available information about the five problems, compare the ratings you made on Worksheet 4 with those suggested on the next pages.

Because distinguishing between a rating of "1" and a rating of "2" may seem somewhat arbitrary in many cases, a brief rationale is provided to explain why each rating was made. The ratings for each problem appear on a separate page.

Remember, these are only suggested responses. If your team's ratings are different from those suggested, and you are not satisfied with the rationales provided, your ratings may still be quite appropriate. If there are any large discrepancies, however, discuss them with the Coordinator.

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Rating the Adequacy of Available Information*

Criteria of Seriousness	ACHIEVEMENT IN BASIC SKILLS PROBLEM	
a. How large is the discrepancy between existing and desired states?	3	*Information is needed to more precisely define the existing state, for example, recent achievement test data analyzed separately for white, Black, and Mexican-American students, and for each basic skill area. The State's minimum proficiency graduation standards specify a minimally acceptable "desired state," so additional information specifying desired outcomes is not as essential.*
b. What proportion or number of students, or of particular groups of students, is affected by the problem?	2	*A fairly adequate description of the student population affected can be inferred from the problem signals, but additional information is needed to confirm that initial description.*
c. How important is the problem to school-related groups?	1	*Available information adequately conveys feelings of a diversity of school-related groups.*
d. What are the financial costs of the existence of the problem?	2	*Available information gives only a sketchy picture of how this problem affects the district financially. Costs of supporting students in EH and EMR classes as opposed to regular classes, for example, would help to fill in the picture.*
e. What related problems may be alleviated if the problem is solved, or aggravated if the problem remains unsolved?	2	*In this case, more information about related problems should probably be sought, because achievement in basic skills would seem to affect so many other areas of student behavior.*
f. How soon is action on the problem required?	2	*Although it is known that the State's minimum proficiency standards will go into effect at a certain date, opinions of people within the district about the "urgency" of this problem should be sought.*

*Rating Scale: 1= little need for more information
2= moderate need for more information
3= great need for more information

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Rating the Adequacy of Available Information*

Criteria of Seriousness		CAREER INFORMATION AND GUIDANCE PROBLEM
a. How large is the discrepancy between existing and desired states?	2	*More information is needed to establish what the district considers desired student outcomes relevant to career information and guidance. Information about the size of MCUSD's vocational guidance staff might help to validate this problem.*
b. What proportion or number of students, or of particular groups of students, is affected by the problem?	2	*It would be helpful to know, for instance, whether college-bound students also desire career education, and at which grade levels vocational guidance services are needed.*
c. How important is the problem to school-related groups?	2	*Although most major school-related groups are represented by the problem signals on hand, more information is needed to reliably evaluate the importance they attach to this problem.*
d. What are the financial costs of the existence of the problem?	3	*Some indication of financial costs should be obtained.*
e. What related problems may be alleviated if the problem is solved, or aggravated if the problem remains unsolved?	2	*Conspiciously missing is information about whether MCUSD students have had trouble finding jobs once they're out of school.*
f. How soon is action on the problem required?	2	*Additional information indicating how urgent this problem is considered would be helpful.*

*Rating Scale: 1= little need for more information
2= moderate need for more information
3= great need for more information

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Rating the Adequacy of Available Information*

Criteria of Seriousness	DROPPING OUT OF SCHOOL PROBLEM	
a. How large is the discrepancy between existing and desired states?	2	*Information is needed about dropout rate, i.e., proportion of students dropping out relative to the number initially enrolled. Comparing the actual number of dropouts to a desired number of zero dropouts would be unrealistic, since the desired state represents perfection. In addition to the actual drop-out rate, you should try to obtain some information concerning the reasons why students are dropping out of school.*
b. What proportion or number of students, or of particular groups of students, is affected by the problem?	2	*The number or proportion of students dropping out is unknown, and the student population affected needs to be more adequately defined.*
c. How important is the problem to school-related groups?	3	*The opinions of others besides the Special Project Director and one high school principal need to be taken into account in judging the seriousness of this problem relative to other pressing problems.*
d. What are the financial costs of the existence of the problem?	3	*Information is needed about the financial costs of this problem to the students who drop-out.*
e. What related problems may be alleviated if the problem is solved, or aggravated if the problem remains unsolved?	3	*This is a high-priority information need, since no information about related problems was included in the problem signals and yet one would certainly expect other student outcomes to be associated with the drop-out problem.*
f. How soon is action on the problem required?	3	*Some indication of the perceived urgency of this problem should be obtained.*

*Rating Scale: 1= little need for more information
2= moderate need for more information
3= great need for more information

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Rating the Adequacy of Available Information*

Criteria of Seriousness	OCCUPATIONAL SKILLS TRAINING PROBLEM	
a. How large is the discrepancy between existing and desired states?	1	*Available information provides an adequate indication of the discrepancy between existing and desired states.*
b. What proportion or number of students, or of particular groups of students, is affected by the problem?	1	*Available information adequately describes the student population affected.*
c. How important is the problem to school-related groups?	1	*Available information adequately conveys feelings of a diversity of school-related groups.*
d. What are the financial costs of the existence of the problem?	1	*Available information suggests financial costs that can be attributed to this problem.*
e. What related problems may be alleviated if the problem is solved, or aggravated if the problem remains unsolved?	1	*Available information suggests related student outcome problems.*
f. How soon is action on the problem required?	2	*Additional information indicating opinions of people within the district about the urgency of this problem would be helpful.*

*Rating Scale: 1= little need for more information
2= moderate need for more information
3= great need for more information

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Rating the Adequacy of Available Information*

Criteria of Seriousness	STUDENT DISSATISFACTION WITH CURRICULUM PROBLEM	
a. How large is the discrepancy between existing and desired states?	*1*	*Available information provides an adequate indication of the discrepancy between existing and desired states.*
b. What proportion or number of students or of particular groups of students, is affected by the problem?	*1*	*Available information adequately describes the student population affected.*
c. How important is the problem to school-related groups?	*1*	*Available information adequately conveys feelings of a diversity of school-related groups.*
d. What are the financial costs of the existence of the problem?	*1*	*Available information suggests financial costs that can be attributed to this problem.*
e. What related problems may be alleviated if the problem is solved, or aggravated if the problem remains unsolved?	*1*	*Available information suggests related student outcome problems.*
f. How soon is action on the problem required?	*1*	*Available information implies how urgent the problem is considered.*

*Rating Scale: 1= little need for more information
2= moderate need for more information
3= great need for more information

Module Four

HOW SHOULD THE INFORMATION BE COLLECTED?

Overview

In Module Three you learned to identify the aspects of a problem about which information is needed to determine its validity and seriousness. Now Module Four will help you to gather information to satisfy particular information needs. You will read about a variety of information sources and methods of collecting information which can be combined to make up information collection plans. You will also be introduced to the concept of cost effectiveness as it applies to information collection. Then your Instructional Planning Team will develop information collection plans based on the specific information needs you identified during Module Three.

By the time you complete this module you should be able to:

1. Identify characteristics of particular sources of, and particular methods of collecting information.

2. Discriminate examples of information sources and information collection methods.

3. Identify the correct definition of cost effectiveness as used in this training unit.

4. Identify examples of information source-method combinations that will most likely provide information about particular criteria that determine seriousness of problems.

5. Select information source-method combinations that will provide information needed about particular criteria that determine seriousness of problems, and that will not exceed a specified budget limit.

I. The Components of an Information Plan

You are now ready to develop plans for collecting additional information about the problems being analyzed. An information plan must specify two components: the sources from which information will be obtained, and the methods by which it will be collected.

Sources of Information

An information source is the person or organization from which the information is collected. Obviously, useful sources of information include organizations and individuals inside the educational system as well as outside it.

For example, to determine whether a drug problem exists in his school district, the superintendent might ask the counselors to interview a representative sample of students. He might also ask one of his staff to interview the director and staff of a local, independently operated drug abuse clinic for their opinions about drug use among the district's students.

A school planner must be aware that the manner in which he received information from a source can distort the meaning of that information. Since he often receives information second-hand, there is danger of distortion or alteration. One way to safeguard against distortion is to collect information from a wide variety of sources so that biases will be counterbalanced. Let us discuss some common sources which an instructional planner might use.

Informed judgment. Many administrative decisions are based only on the decision maker's accumulated training and experience. Since data need not be gathered, this may appear efficient, but only if it provides the needed information can it be considered cost effective. Often the experiences or judgments of a single individual cannot take into account all the aspects of a problem situation.

Colleagues. Frequently a school decision maker gets information about a problem by discussing it with colleagues from the same or a neighboring district. The district superintendent or assistant superintendent, curriculum coordinators, educational specialists, school principals and vice principals, supervising teachers and department chairmen, counselors, county office of education staff, state department of education staff, and personnel of other school districts, can all be useful sources of information.

If an instructional planner comes to depend entirely on such contacts for his information, there is a danger that his colleagues may have viewpoints similar to his own, and may simply confirm his misconceptions or biases. This makes it of prime importance to seek a variety of viewpoints outside of your immediate professional and personal milieu.

Existing school, district, or agency records. Much of the needed data may already be available through records kept at individual schools or in the central office. Most schools have a substantial file of pupil personnel data. Needed data may also be obtained at no cost through records of private and public community agencies, and from public libraries, university libraries, local professional education libraries, the district research office and university and federal educational research and development centers. Minutes of meetings of groups including parent-teacher associations and other school-related organizations, might indicate how various school-related groups feel about particular issues.

Consultants. A consultant may have special expertise as well as access to information beyond that available to school personnel. Furthermore, as an outsider he should view the problem without the emotional overtones that frequently mar the objectivity of those close to a situation. He may also be able to generate creative ideas, whereas a group would fashion a consensus that

may please everyone, but only partially relieve the problem. On the other hand, the consultant's objectivity may be compromised by personal values and opinions. His services may be costly. The staff may resist incorporating an outsider into their decision-making procedures. A local university or college expert who knows the district well might not need much briefing before rendering his services; a consultant from a national or regional educational organization or firm would need a more comprehensive introduction to the district and community.

Samuel Mangione[1] summarizes the procedures involved in using consultants:

> After proper orientation to the factors involved in a particular situation, outside consultants from universities, state departments of education, intermediate districts, regional laboratories, or supplementary centers can be of assistance in providing some valuable insights which may have eluded local staff. Hopefully, the orientation of outside consultants will include consideration of "hard" data (for example, achievement scores, dropout rates, and student unrest) which may be available. Failure to consider such data would be folly.
>
> It is strongly suggested that consultants be presented with problems or needs that are quite specific if they are to make a worthwhile contribution. Obviously, care should be exercised in selecting a consultant whose expertise is closely related to the educational need under consideration.

Students. Students can provide information from the horse's mouth, so to speak, about most student outcome problems. Generally it is necessary to concentrate on a particular sample or group of students, since it would be impractical to gather information from the entire school population. You could select the population on the basis of age, grade level, school site, sex, ethnic background, ability level, involvement in a certain program, or identification as having a certain problem. The sample of the population from which information is obtained must be of sufficient size to give reliable data. You should exercise special care in selecting the methods for collecting information from students, particularly younger ones, so that their views can be aired in the most clear and useful manner.

Parents. While parents very often take the initiative in educational matters, their concerns are frequently restricted to those pertaining to their own children--especially when the parents speak as individuals rather than as members of groups. Information from parents may therefore be quite personal and limited in scope. But parents acting as group spokesmen or representatives may offer information that is more broadly based and of long-range importance. When their views are actively sought on an issue, only the parents of those students directly affected need be contacted (for example, boys, elementary students, or students of a particular ethnic background).

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[1]Samuel Mangione, "Bringing perspective to the change situation." Educational Leadership, 1970, Vol. 27, No. 4, 361.

Local citizens, community groups, and special interest groups. In most communities, groups have been organized inside or outside the schools to advocate or resist changes in the schools. Their militancy has increased the tendency for schools to involve them at all points in school and district decision making. Such groups are important sources of information, and can help diagnose problems and assist in planning relevant instructional programs. For example, consultation with leaders of the Black community would be desirable in deciding whether student demands for an Afro-American curriculum are valid and serious. Destructive conflict often results if this is not done before setting priorities on district problems. As David and Linda B. Johnson[2] point out:

> The ability of the school to communicate effectively with groups militantly advocating change, to influence their approaches to changing the school, and to deal with differences of opinion constructively, therefore, rests upon its ability to strengthen and make salient the cooperative bonds between the groups and the school.

Many groups which militantly advocate or resist educational changes do so because of a history of frustration in prior contact with the schools. The instructional planner must be sensitive to this and may need to choose information-collection methods that are personal and direct (such as interviews, attendance at group meetings, or informal conversations) rather than formalized or indirect (such as questionnaires and opinion surveys). While the former techniques may be more costly because they require more interpretation and analysis, they may be more cost effective in the long run by supplying the planner with more reliable, accurate information.

Other characteristics of emergent community groups requiring administrative sensitivity are described by Johnson and Johnson[3] as follows:

> The role definitions of the group, for example, are constantly changing . . . . The individuals with whom the school administrators deal may quickly lose their leadership positions, leaving new leaders with whom the school's personnel must begin anew. Similarly, with hazy group norms and values members may perceive cooperative attitudes and behavior appropriate one day and competitive ones appropriate the next. The internal dissension often characteristic of young groups, furthermore, may stimulate a competitive stance toward changing the school as a means for increasing the group's cohesiveness and stabilizing its structure.

Despite the difficulties involved in seeking information from militant community groups, the ultimate advantages are worth considering: intensive diagnosis of problems, and development of cooperative relationships and effective communications between schools and school-related groups.

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[2]David W. Johnson and Linda B. Johnson, "Intervention with uncrystallized groups." Educational Leadership, 1970, Vol. 27, No. 1, 41.

[3]Ibid.

Methods of Collecting Information

An information collection method is any of a variety of techniques that can be used to obtain information. Certain combinations of information sources and collection methods were suggested in the discussion of sources. We will explore the relative advantages and disadvantages of various source and method combinations later. Here we shall describe various information methods and briefly discuss their relative costs, the expertise and resources needed to use them, the time involved in implementation, and the specificity, depth and type of information provided by the different methods.

Literature search. A search of the literature can be a first step toward developing an adequate theoretical or conceptual base for subsequent data gathering. An adequate literature search requires considerable resources, including sufficient manpower and access to a good library. The individuals involved must have an understanding of the problem area and be capable researchers. If too much material is available the information must be abstracted or organized in a form that can be used effectively by key decision makers.

Retrieval of information from existing records. Existing school, district, agency or organization records were discussed as possible sources of information. Caution must be exercised, however, when retrieving data from existing records. Such data may include gross inaccuracies as a result of clerical errors in recording. The data may be obsolete, for example, results of testing procedures no longer considered valid. The original objectives for data gathering may be compromised to fit the data sources readily available. Information gathered by someone else may not be what it appears to be, particularly when summaries or compilations of data are obtained. One must ensure that the information gathered actually fills a present information need. It may be necessary to examine the original questionnaire or survey instrument.

Questionnaires. The questionnaire is often the first suggestion for getting information from school-related groups. Since this method of data gathering is so common, it is easy to overlook its limitations. Good and Scater[4] caution:

> It is relatively slow, requires a large investment of time on the part of the investigator, and often gives results that are highly disappointing, because of their incompleteness, indefiniteness, and the generally hostile attitude of recipients toward the flood of appeals made for cooperation in answering questionnaires.

The return rate of a direct mail questionnaire is frequently not more than 30 percent of the total mailing, and 50 percent return is usually viewed as an excellent return rate in a large study. Those who do respond may represent a biased sample of the recipients, for example, those having more formal education than non-respondents, or with a particular interest in the area under study. There is an inverse relationship between the length of the questionnaire and the rate of return. The rate of return can be increased by having the questionnaires filled out at a meeting or in a classroom, and having someone present who is

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[4]Carter V. Good and Douglas E. Scater, Methods of research. New York: Appleton-Century-Crofts, Inc., 1954, 605.

familiar with the questionnaire to help clarify questions which arise. Sampling can provide reliable information if selection is carefully made from the groups concerned. Most experimental studies emphasize the importance of good random sampling techniques; such procedures may not be desirable in all cases. For diversity of opinion at minimum cost (if you do not need to extend the findings to apply to a large group), it might be better to send questionnaires only to selected individuals. All important segments of the community must be identified and sampled in proportion to the sizes of the groups that they represent.

Another problem presented by questionnaires is terminology. It is difficult to phrase questions so that they have the same meaning for individuals of diverse backgrounds, particularly controversial questions that may arouse the emotional biases of the respondent. Unobjectionable terms are often so vague that respondents may interpret them quite differently from what you had in mind. Great difficulties can ensue when resulting decisions run counter to the concerns and choices that the respondent believed he was expressing.

Interviews. Personal interviews can overcome some of the problems inherent in the questionnaire. Certain types of information--intimate facts, opinions, beliefs--can best be secured by direct contact in which skilled interviewers can prompt persons to clarify and amplify their responses. If more than one interviewer is used, they must use a common set of terms and concepts to maintain uniformity in the recording of responses. There are several kinds of interviews:

Structured interviews using a standardized list of questions resemble questionnaire surveys. While it is important for the interviewer to establish rapport with the respondent, he should keep the sequence and phrasing of questions standard for all respondents to increase the reliability of the results.

Opinion polls represent a series of brief, standardized interviews in which responses are restricted to a few categories. Depending upon the person's initial responses, the pollster may then vary his subsequent questions to get information on related issues.

A combination of standardized questions with no restrictions on responses frees the interview somewhat, but the resulting wide range of responses makes analysis difficult.

Unstructured interviews have no restrictions on either questions or responses, except for the topic of discussion, resulting in a relatively free interchange.

Depth interviews attempt to probe deeply to assess motivation and attitudes. As with other types of "free" interviews, it is difficult to quantify responses and so is impractical for analyzing long-range, general school problems. The more unstructured the interview, the wider the range of possible errors in recording, assessing, analyzing, and summarizing the results.

Interviewing is more expensive than using questionnaires to obtain a similar quantity (but not necessarily quality) of data. Trained and competent interviewers are required for a reliable interview study, and the time for conducting personal interviews is necessarily greater.

Attendance at meetings, conferences, workshops. Attendance at public affairs and meetings can be a good way of gathering information about how individuals respond to sensitive problems such as school integration, sex education, drugs, or ability grouping. The instructional planner can adopt an active role or he can simply take notes and report to other staff. He can use both active and passive roles together. For example, while attending a community group meeting he can talk informally with some members of the group, or he can request that the entire group offer their opinions concerning a certain problem or topic. Circulating a written list of problems among the members with the request that they assign priorities to them could be effective in identifying the major concerns and interests of the group. Asking the members to fill out a questionnaire or interviewing selected individuals will produce more specific information.

Direct observation of activities. Because people often respond to questioning as they think they are expected to rather than as they truly feel, direct observation of activities might reveal much more about underlying feelings. The observer can be a participant in the activity, in which case he may become so engrossed that he will miss some important events or lose his objectivity. Or he may be simply a by-stander, in which case he may not get an adequate "feel" for the activity and may distort his report unwittingly. For example, an observer viewing a Hopi rain dance may note the lack of concrete results but fail to recognize the necessary social and psychological benefits to the individuals participating.

Unobtrusive measures. Often the presence of an observer modifies the behavior of participants, thus destroying the purpose of the observation. Unobtrusive measures can be devised to avoid this, such as checking library records for an increase in books or periodicals checked out that deal with drugs rather than merely asking students whether a course has influenced them to find out more about drug use and abuse. Care must be taken, however, that the phenomena measured are actually related to the problem. The sample of behavior observed will usually be too restricted to provide all the information needed, without also resorting to collection of verbal reports. Sometimes unobtrusive measures can be used at modest cost to supplement other measures.

Formation of committees. Committees can be assembled quickly, and bring varied experience and opinion to bear on a problem. However, the output of information in relation to committee time may be small and its quality is often open to question. In seeking consensus a committee tends to revise ideas nearly beyond recognition, frequently blocking innovation. On the other hand, committees may be swayed by a particularly strong individual so that the group opinion may be quite different from that which would result from polling the individual members. The committee's expectations about its role must be clarified beforehand. Members must understand the limitations on the committee's decision-making powers, so that negative feelings will not arise if all its proposals are not implemented.

Personal contact. This method of seeking information is the least structured, the easiest to implement and thus often the cheapest. Examples of this technique are telephoning the leader of a community organization and meeting informally with a group of parents. The information gathered must be recorded organized, and communicated to other staff members. Klopf[5] discusses several varieties of the personal contact method:

1. The consultation is an interview process between two, three, or, at the most, four, individuals. Those designated as consultees are all involved in a particular situation, problem, idea, or task. The marked difference in the actual technique of consultation is that it focuses the interview on a third person, a problem, an idea, or a situation, rather than on the consultee himself. The exchange of information or materials about the matter moves toward a genuine peer relationship. The consultant does attempt to see the situation from the perceptual framework of the consultee, but generally does not enter the private inner world of the consultee.

   The exchange of information may be direct or through the use of varied media. Referrals are made to other training resources and other means of gaining help...These other activities and processes are not part of the consultation itself. However, there is a fine line between consultation and training, and the consultant may assume the role of a trainer for certain periods of time in the sequence of consultation.

2. Dialogue is an exchange involving two, three, or four individuals. The discussion is a mutual exploration of an idea, information, a situation, an experience, or a task which may be central to the group. The content of the discussion remains with the topic. Less direct attention may be given to the expression of difference and highly individualized points of view of the members of the dialogue group.

   A dialogue may last for an hour or two at the most. It may be part of a series of meetings, with different consultants brought to it for particular kinds of input. It may move toward the resolution of or the approach to a task. It gives a major emphasis to exploration and not resolution, to the raising of questions rather than specific answering. The consultant does not play the facilitation role unless he is asked to do so, but shares in the giving and exchanging of information and experiences.

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[5]Gordon J. Klopf, Interaction processes and change. Educational Leadership. 1970, Vol. 27, No. 4, 334-338.

3. The encounter is a meeting of two or more individuals, but usually not more than eight, who come together to face a situation in terms of themselves and their roles as highly differentiated individuals in the situation. The process defined here arises out of the need for a group of people to face their real selves as they deal with a mutual problem. Out of the encounter should come realistic appraisal of the roles of the individuals. It differs from the processes of consultation and dialogue, in that the participants deal not just with the mutual concern from a problem-solving task-oriented, or situational approach, but with the person or persons involved.

   The encounter provides the opportunity to communicate feelings, to be angry, to be sympathetic, to be sensitive, to respond with conviction of a deep personal nature, to reflect passion and concern, to experience people as they are. The participant does not play a role, the facade is down; he is a real person and does not deny self. One listens to what others are saying, what they are trying to say, and what they are actually saying.

4. The confrontation is a planned activity, initiated by someone based on his understanding of the person, conflict and the quality of the relationship. Factors of time and urgency as well as the skill of the initiator and the ego strength of the confrontee are all determinants of the effectiveness of a confrontation.

   There may be some real dangers in using confrontation. Can the confrontee handle the attack? Does he operate from what he considers a position of honesty and integrity for him? If he is functioning outside the limits of the situation, does he know what the limits are before he is confronted about them? Have other less direct and threatening processes been used prior to the confrontation? Is the initiator ready for the crisis or hostile behavior and negative attitude that may result from the directness of his observations?

Structured and unstructured, formal and informal personal contacts may be used to supplement more laborious information-gathering devices. Mangione emphasizes the need for open communication among all parties when he states that those to be affected by a change should be involved in the decisions, even when their numbers make peer representation the only practicable means of involvement; direct involvement on a person-to-person basis maximizes conditions for the exchange of ideas, dissemination, and feedback on proposals or plans.[6]

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[6]Samuel Mangione. Op. cit., 359-360.

II. Developing a Cost-Effective Information Plan

The concept of cost effectiveness may be used in a variety of ways. For this training unit, an information plan is cost effective if it best provides the information needed about a specific problem for the least amount of money. This may be interpreted in either of two ways:

Given a specified budget, the information plan will provide as much information as possible relevant to identified needs while not exceeding the budget limit; or

Given a specified set of information needs, the information plan will satisfy all the information needs at the least possible expense.

A cost-effective information plan must take into account both the appropriateness of various information sources and collection methods for identified information needs, and the resources and time required to collect the information. A cost-effective information plan will not, for example, use an information collection method that is a large drain on district resources to obtain information that is already available in fairly usable form.

Selecting information sources and collection methods for inclusion in a cost-effective information plan can be approached systematically by considering the following questions:

1. Which information source(s) will best satisfy each information need you have identified?

2. Which method(s) of collecting information is best suited to each information need and the selected information source(s)?

3. What will it cost to collect the information?
   (The main factors that contribute to the cost of an information collection plan are how much time, how many people, and what special skill or expertise will be needed to gather, process, and report the information to decision makers.)

4. Can the cost be reduced without also reducing the effectiveness of the information to be collected?
   (Cost reduction includes such actions as identifying information source-method combinations that might simultaneously satisfy more than one identified need, identifying information collection methods that might be used equally well to gather information from more than one source you have selected, identifying readily accessible information sources, and using collection methods based on informal contacts, that involve little or no expense.)

5. Does the information plan include a variety of information sources, producing divergent sources of opinion about the problem?

6. Does the information plan include a variety of information collection methods, producing types of information ranging from statistical data to interpretive commentary?

For the sample problem of drug education, what source-method combinations seem appropriate to provide information about the criteria of seriousness concerning importance of the problem to school-related groups, and financial costs of the existence of the problem? Statistical information relevant to financial costs of the drug problem could easily be obtained, but information specifying the importance of the problem to school-related groups may consist mainly of statements of opinion and attitude. More complicated, sophisticated, and resource-consuming source-method combinations might be needed to collect information pertinent to this latter criterion.

Planning to implement various source-method combinations in a cost-effective manner means that the decision to commit resources to one specific source-method combination cannot be made in isolation from the decisions about the other components of your information plan. In isolation, one source-method combination might seem highly desirable and necessary to supply adequate information pertinent to one of the criteria of seriousness. However, as you consider other information needs and other available source-method combinations, you might decide to revise your initial plan. Less complicated, costly, and time-consuming methods, or a reduction of the number of groups from whom you solicit information might appear more feasible.

If you need information concerning importance of the drug education problem to school-related groups, how do you determine which groups to involve? A group may show its concern about a problem by communicating problem signals to the schools. A group may be a relevant source for one problem, but have no relevance for another. Students, teachers, counselors, parents, or principals are always useful sources of information about student outcome problems. Another appropriate source is the group that forms in response to a specific problem, such as the vocational education committee of a local Chamber of Commerce, or a drug information and treatment clinic operated by a group of local doctors. A planner might seek additional information from groups whose positions and opinions are contrary to those offered by the sources of problem signals, to ensure that the proposed information plan provides access to divergent sources of information about a particular problem.

Suppose you decide to contact high school teachers concerning the importance of the drug problem to school-related groups. Now you must decide whether to contact a large number quickly with a standardized questionnaire, or to make an in-depth opinion survey of a representative sample of teachers that would probably be more costly and time-consuming, but would better reflect the personal feelings and values of teachers. "How many students in our district have been arrested for the use, possession, or sale of marijuana in the past year?" is a question of an entirely different order than "What is it about smoking marijuana that students find more exciting and interesting than school work?" The latter question cannot be answered adequately with statistical data or a highly structured questionnaire.

Questionnaires require time to design, mail, await returns, and tabulate results. You may have to set a deadline by which time questionnaires must be received in order to be included in the analysis. A lenient deadline will probably increase the sample size somewhat. A short questionnaire might also elicit a higher return rate, since it is less of an imposition on the respondents. The level of skills and number of people needed to process the results depends upon the volume of returns, the complexity of the questionnaire, and the method of tallying responses.

If a more formal and extensive base of information about importance to school-related groups is desired, you can form a Drug Education Committee, with both school staff and community representatives, to study the drug problem. A decision to use this time-consuming combination of source and method might make it more difficult to use other combinations that draw on the same resources, however. You must decide whether the time, money, and resources involved allow other information needs to be met, thus being cost effective in the long run.

What source-method combinations are appropriate for the criterion of financial costs of the existence of the problem? Students would be an appropriate information source if you want to know the costs of certain drugs or the average weekly expenditure by high school students for drug purchases. For associated financial costs, such as how much the district is spending to educate counselors about drugs, there are quick and efficient ways to get information: a phone call, personal meeting, letter, memo, or records search--all collection methods--in combination with Central Office staff members and district records--information sources. To find out how much the city or county is spending to maintain a drug abuse clinic and information center, a similar set of methods applied to such sources as the county and city health departments or the clinic director will provide the desired information. To find out how much the Police Department is spending to augment its apprehension of various kinds of drug law offenders, it would not be cost effective to administer a questionnaire to policemen asking what they think is the financial cost of apprehending drug violators since this information is readily available in the form of "hard data." A phone call to the head of the Narcotics Bureau or to the Chief of Police should suffice. At best only informed estimates could be obtained of the cost to the community at large of thefts supporting students' drug purchases, or of providing education for students whose drug use prevents their taking full advantage of that education.

Developing cost-effective information plans involves judgments concerning what resources should be allocated to meet each information need. Basing these judgments upon thoughtful use of criteria for selecting the "best"--most needed--information will help to ensure that the information collected is of high quality, But no matter how carefully planned your information collection procedures are, the quality of the information you collect may still vary in terms of such variables as objectivity, reliability, appropriateness, or applicability. The quality of information that is collected, which will determine its effectiveness in meeting your information needs, must be evaluated before important decisions are based on the information.

Module Four Self-Test

This self-test is to help you assess your understanding of the process of developing cost-effective information plans. Refer to the reading if you wish, but do not review the suggested responses that follow until you have attempted all the items.

1. In the space after the word "Source" write the letters of the items listed below which are information sources, and in the space after the word "Method" write the letters of the items which are information collection methods.

   Source _____

   Method _____

   a. Literature search
   b. Opinion poll
   c. Informed judgment
   d. Direct observation of activities
   e. Existing school records
   f. School-related groups
   g. Attendance at conferences
   h. Formation of committees
   i. Personal contact
   j. Consultant

2. When the phrase "cost effectiveness of an information plan" is used in this training unit, it means that (check one statement):

   _____ a. The plan utilizes the greatest variety of source-method combinations pertinent to each criterion of seriousness.

   _____ b. The plan provides the information needed about a problem while staying within the budget limits.

   _____ c. The plan utilizes those source-method combinations which are least expensive and most readily available.

3. Each of the information sources listed below on the left corresponds to ONE statement in the right-hand column. Match the items by putting the letter of the appropriate statement before the source to which it applies.

_____ Consultants	a. May be difficult to relate to initially, but should be contacted to prevent long-term misunderstandings from arising.
_____ Community-action groups	b. Frequently have concerns restricted to matters pertaining to only particular students.
_____ Parents	c. Generally have desired expertise but need to be familiarized with local situation.
_____ Informed judgment	d. Must be informed of the limits on their decision-making powers.
_____ Committees	e. May appear efficient but often fails to take into account all aspects of the problem.

4. Each of the methods of collecting information listed below on the left corresponds to ONE statement in the right-hand column. Match the items by putting the letter of the appropriate statement before the method to which it applies.

_____ Personal contact	a. Avoids possible inhibiting effect of observer.
_____ Literature search	b. Its terminology must specifically define the issue to which the individual is to respond without emotionally biasing him.
_____ Questionnaire	c. Relatively unstructured and easy to implement.
_____ Attendance at meetings	d. The instructional planner may take an active or passive role.
_____ Unobtrusive measure	e. Requires manpower and a library, but can be a good first step.

5. Match each source-method combination with the one criterion of seriousness about which it would most likely give you information. Write the number of the source-method combination next to the appropriate criterion of seriousness. Use an answer only once.

Criteria of Seriousness

___ a. How large is the discrepancy between the existing and desired states?

___ b. What proportion or group of students is affected by the problem?

___ c. How important is the problem to school-related groups?

___ d. What is the financial cost of the existence of the problem?

___ e. What related problems may be alleviated if the problem is solved?

___ f. How soon is action on the problem required?

Summaries of Source-Method Combinations

1. A budget analyst's estimate of what additional funds will be needed for an inservice program in drug education for secondary-level counselors.

2. An interview with a local businessman in which he discusses some of the consequences associated with inadequate high school job training programs.

3. A consultant's report comparing those occupations whose manpower needs are expected to increase over the next decade, and the job skills training programs of the District's high schools.

4. Achievement test data retrieved from the cumulative personnel records showing the grade level and ethnic background of elementary school students who are one year or more behind in their reading level.

5. An educational needs questionnaire circulated to parents in the District asked them to rate the desirability of instruction in the use and abuse of drugs as compared with other instructional problems.

6. School Board wants a Sex Education program implemented by next fall.

Suggested Responses

for Module Four Self-Test

Please do not look at the Suggested Responses until you have attempted all the items on the Self-Test.

1. In the space after the word "Source" write the letters of the items listed below which are information sources, and in the space after the word "Method" write the letters of the items which are information collection methods.

Source c, e, f, j

Method a, b, d, g, h, i

a. Literature search
b. Opinion poll
c. Informed judgment
d. Direct observation of activities
e. Existing school records
f. School-related groups
g. Attendance at conferences
h. Formation of committees
i. Personal contact
j. Consultant

2. When the phrase "cost effectiveness of an information plan" is used in this training unit, it means that (check one statement):

____ a. The plan utilizes the greatest variety of source-method combinations pertinent to each criterion of seriousness.

✓ b. The plan provides the information needed about a problem while staying within the budget limits.

____ c. The plan utilizes those source-method combinations which are least expensive and most readily available.

3. Each of the information sources listed below on the left corresponds to ONE statement in the right-hand column. Match the items by putting the letter of the appropriate statement before the source to which it applies.

___e___ Consultants	a. May be difficult to relate to initially, but should be contacted to prevent long-term misunderstandings from arising.
___a___ Community-action groups	b. Frequently have concerns restricted to matters pertaining to only particular students.
___b___ Parents	c. Generally have desired expertise but need to be familiarized with local situation.
___e___ Informed judgment	d. Must be informed of the limits on their decision-making powers.
___d___ Committees	e. May appear efficient but often fails to take into account all aspects of the problem.

4. Each of the methods of collecting information listed below on the left corresponds to ONE statement in the right-hand column. Match the items by putting the letter of the appropriate statement before the method to which it applies.

___c___ Personal contact	a. Avoids possible inhibiting effect of observer.
___e___ Literature search	b. Its terminology must specifically define the issue to which the individual is to respond without emotionally biasing him.
___b___ Questionnaire	c. Relatively unstructured and easy to implement.
___d___ Attendance at meetings	d. The instructional planner may take an active or passive role.
___a___ Unobtrusive measure	e. Requires manpower and a library, but can be a good first step.

5. Match each source-method combination with the one criterion of seriousness about which it would most likely give you information. Write the number of the source-method combination next to the appropriate criterion of seriousness. Use an answer only once.

Criteria of Seriousness	Summaries of Source-Method Combinations
3 a. How large is the discrepancy between the existing and desired states?	1. A budget analyst's estimate of what additional funds will be needed for an inservice program in drug education for secondary-level counselors.
4 b. What proportion or group of students is affected by the problem?	2. An interview with a local businessman in which he discusses some of the consequences associated with inadequate high school job training programs.
5 c. How important is the problem to school-related groups?	3. A consultant's report comparing those occupations whose manpower needs are expected to increase over the next decade, and the job skills training programs of the District's high schools.
1 d. What is the financial cost of the existence of the problem?	4. Achievement test data retrieved from the cumulative personnel records showing the grade level and ethnic background of elementary school students who are one year or more behind in their reading level.
2 e. What related problems may be alleviated if the problem is solved?	5. An educational needs questionnaire circulated to parents in the District asked them to rate the desirability of instruction in the use and abuse of drugs as compared with other instructional problems.
6 f. How soon is action on the problem required?	6. School Board wants a Sex Education program implemented by next fall.

MCUSD NEWS

MCUSD PLANNING TEAM REQUESTS FUNDS TO CONTINUE ITS STUDY

Dec.___ A noted educational information consultant, Dr. Data Chaser, has been hired by MCUSD to help the Instructional Planning Team select procedures for collecting information about major instructional problems in the Mid City schools.

Since the beginning of the school year, the Instructional Planning Team has been analyzing five major problems alleged to exist in the schools: Achievement in Basic Skills, Career Information and Guidance, Dropping Out of School, Occupational Skills Training, and Student Dissatisfaction with Curriculum. By spring, they plan to recommend priorities for action on the most serious problems, so that the school budget can be prepared accordingly.

At the last meeting of the Board of Education, the IPT summarized the information that is presently available about the five problems, and demonstrated that they cannot reliably conclude how serious three of the problems are without additional information. Accordingly, the Board concurred that Dr. Chaser should be hired to help the team collect the additional information needed.

Dr. Chaser and the IPT attended the most recent meeting of the Board, held last night, to propose plans for collecting information relevant to the three problems: Achievement in Basic Skills, Career Information and Guidance, and Dropping Out of School. Three separate plans were presented, each of which he estimated would cost between $1200 and $1300 to implement.

The plans were initially rejected by the Board because of their expense. Superintendent Redford explained that the school budget is extremely tight, and "unfortunately will not allow for such a thorough investigation by the Instructional Planning Team."

Eventually the Board agreed to provide $600 to the Planning Team for collecting additional information about each of the three problems. Dr. Redford stressed that the IPT must spend this money judiciously, since it is less than half of what the consultant had proposed spending. He requested that the Planning Team "sample from Dr. Chaser's proposed information plans the methods that you think will most effectively provide the information you need."

INSTRUCTIONS FOR FIRST TEAM ACTIVITY

Developing an Information Collection Plan for the ACHIEVEMENT IN BASIC SKILLS Problem

During this module your Instructional Planning Team must pare down the three information collection plans developed by the educational information consultant so that each will not exceed the $600 budget approved by the MCUSD Board of Education. Use the worksheet on the next page to develop an information collection plan for the Achievement in Basic Skills problem by following these steps:

1. First quickly scan the information summary for the Achievement in Basic Skills problem (Suggested Responses for First Team Activity, Module Three, pages 123-124), and review your team's ratings of need for more information pertinent to that problem (Worksheet 4, page 141).

2. Read the list of information choices on page 175. As you can see, the information choices fall into three general price ranges which are estimated at $50, $100, and $200. Generally, the $50 information choices involve retrieval of readily available information that requires only minimal staff and clerical time, while the more expensive information choices require more staff time for development of specialized procedures or for gathering the data, mailing expenses, travel expenses, consultant fees, etc.

3. As a team, select the information choices that you think will most effectively provide the information you need for a total cost of $600 or less. In the first column of Worksheet 5, record the code numbers (BS-1, etc.) of the information choices you select.

4. Check (✓) the column(s) under the criterion or criteria of seriousness about which you hope to get information from each information choice you select. (See key at bottom of worksheet.) Remember that each information choice may provide information about more than one criterion.

5. In the last column of Worksheet 5, record the cost of each information choice you select.

6. Don't feel compelled to spend your entire budget of $600. If you can collect all the information you need with less than the budgeted amount, so much the better.

WHEN YOU HAVE RECORDED ALL YOUR SELECTIONS ON WORKSHEET 5, TURN TO PAGE 177 AND REVIEW THE SUGGESTED RESPONSES.

WORKSHEET 5

Developing an Information Collection Plan for the Problem:
ACHIEVEMENT IN BASIC SKILLS

Information Choices (Code Numbers)	Criteria of Seriousness* Applicable to Each Information Choice						Cost of Each Information Choice
	a	b	c	d	e	f	

*Criteria that Determine the Seriousness of Problems:

a. How large is the discrepancy between the existing and desired states?
b. What proportion or group of students is affected by the problem?
c. How important is the problem to school-related groups?
d. What are the financial costs of the existence of the problem?
e. What related problems may be alleviated if the problem is solved?
f. How soon is action on the problem required?

	COST: $50. EACH	
BS-1	Source:	Outside experts
	Method:	Literature search
	Content:	National importance attached to basic skills achievement
BS-2	Source:	Mid City businessmen
	Method:	Attendance at meetings, personal contacts
	Content:	Economic problems associated with MCUSD's low-achieving minority students
BS-3	Source:	Mid City citizens
	Method:	Formation of a committee
	Content:	Committee recommendations regarding equal educational opportunity for low-achieving, low-income students
	COST: $100. EACH	
BS-4	Source:	Teachers
	Method:	Questionnaire
	Content:	Number and ethnic background of MCUSD students receiving failing grades
BS-5	Source:	Consultants (Education professors from local university)
	Method:	Interviews
	Content:	Causes of low academic achievement of low-income students
BS-6	Source:	Teachers (Special Education staff)
	Method:	Formation of a committee
	Content:	Incidence of placement of low-achieving students in classes for Educationally Handicapped or Educable Mentally Retarded
BS-7	Source:	Existing school or district records
	Method:	Retrieval of information from existing records
	Content:	Absenteeism and tardiness rates for low-achieving students from culturally different groups
	COST: $200. EACH	
BS-8	Source:	Consultant (Curriculum consultant for Blacks and Mexican-Americans)
	Method:	Personal contact
	Content:	Evaluation of MCUSD's instructional program as it relates to Blacks and Mexican-Americans
BS-9	Source:	Parents (random sample of 2,000)
	Method:	Questionnaire
	Content:	Importance of basic academic skills to parents of minority students
BS-10	Source:	Students (Elementary and Secondary)
	Method:	Achievement tests
	Content:	Achievement levels of MCUSD students from various ethnic groups in reading, language arts, and mathematics

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Developing an Information Collection Plan for the Problem:
ACHIEVEMENT IN BASIC SKILLS

The first requirement for a cost-effective plan is that it provide the information that is most needed about the problem. Probably the best way to determine this is to actually get the information and see if it answers your information needs. You will be able to do this during Module Five when you will receive the information choices you just selected.

At this point, however, you can compare your information choices with those most often identified by the developers as appropriate for each of the criteria that determine seriousness of problems. To judge the effectiveness of your information plan, look at:

a. The criteria for which your team indicated a need for more information (ratings of "2" and "3") on Worksheet 4;

b. The information choices you specified on Worksheet 5;

c. The choices checked below, which the developers judged most appropriate, for the criteria you rated "2" or "3":

	Information Choices that Appear Appropriate									
Criterion	BS-1 $50	BS-2 $50	BS-3 $50	BS-4 $100	BS-5 $100	BS-6 $100	BS-7 $100	BS-8 $200	BS-9 $200	BS-10 $200
a. How large is the discrepancy between existing and desired states?				✓		✓		✓		✓
b. What proportion or group of students is affected by the problem?				✓		✓				
c. How important is the problem to school-related groups?	✓		✓						✓	
d. What are the financial costs of the existence of the problem?		✓								
e. What related problems may be alleviated if the problem is solved?							✓			
f. How soon is action on the problem required?	✓		✓						✓	

To be cost effective, your information plan on Worksheet 5 should definitely include information choices that are likely to provide information about the criteria which you rated "3" (great need for more information). It should also include choices appropriate for the criteria which you rated "2" (moderate need for more information), and only if all these needs have been satisfied should it include choices appropriate for criteria rated "1" (little need for more information). Information plans that include choices appropriate for two or more criteria about which you need more information are most cost effective.

The second major requirement for a cost-effective information plan is that it provide the information you need at the least cost. Total the cost of your information plan and compute the amount you saved out of the $600 budget, if any. Remember that those information plans that cost less than the allotted budget of $600 but still provide information about all the criteria of seriousness for which you needed more information are most cost effective.

WHEN YOU HAVE FINISHED EVALUATING THE COST-EFFECTIVENESS OF YOUR INFORMATION COLLECTION PLAN, PROCEED TO THE SECOND TEAM ACTIVITY BEGINNING ON PAGE 179 .

INSTRUCTIONS FOR SECOND TEAM ACTIVITY

Developing Information Collection Plans for the CAREER INFORMATION AND GUIDANCE and DROPPING OUT OF SCHOOL Problems

Now develop information collection plans for the remaining two problems on the two worksheets which follow this page:

1. Scan the information summaries for the Career Information and Guidance, and Dropping Out of School problems (Worksheet 3, pages 127-130, or Suggested Responses for First Team Activity, Module Three, pages 133-136), and review your team's ratings of need for more information pertinent to those problems (Worksheet 4, page 141).

2. For each problem, read the lists of information choices on pages 185 and 187. As a team, select the information choices that you think will most effectively provide the information you need and cost no more than $600.

3. In the first column of Worksheet 5, record the code numbers of the information choices you select.

4. Check (✓) the column(s) under the criterion or criteria of seriousness about which you hope to get information from each information choice you select.

5. In the last column of Worksheet 5, record the cost of each information choice you select.

WHEN YOU HAVE RECORDED ALL YOUR SELECTIONS ON WORKSHEET 5, REVIEW THE SUGGESTED RESPONSES ON PAGES 189-190.

Developing an Information Collection Plan for the Problem: CAREER INFORMATION AND GUIDANCE

Information Choices (Code Numbers)	Criteria of Seriousness* Applicable to Each Information Choice						Cost of Each Information Choice
	a	b	c	d	e	f	

*Criteria that Determine the Seriousness of Problems:

a. How large is the discrepancy between the existing and desired states?
b. What proportion or group of students is affected by the problem?
c. How important is the problem to school-related groups?
d. What are the financial costs of the existence of the problem?
e. What related problems may be alleviated if the problem is solved?
f. How soon is action on the problem required?

Developing an Information Collection Plan for the Problem: DROPPING OUT OF SCHOOL

Information Choices (Code Numbers)	Criteria of Seriousness* Applicable to Each Information Choice						Cost of Each Information Choice

*Criteria that Determine the Seriousness of Problems:

a. How large is the discrepancy between the existing and desired states?
b. What proportion or group of students is affected by the problem?
c. How important is the problem to school-related groups?
d. What are the financial costs of the existence of the problem?
e. What related problems may be alleviated if the problem is solved?
f. How soon is action on the problem required?

COST: $50. EACH		
CI-1	Source:	Colleagues (Vocational Education teachers and counselors)
	Method:	Literature search
	Content:	Needed changes in school guidance programs
CI-2	Source:	Parents (small, informal sample)
	Method:	Interviews
	Content:	Students' knowledge of career options and training requirements
CI-3	Source:	Existing district records
	Method:	Retrieval of information from existing records
	Content:	Board of Education's position on improving the vocational education program
CI-4	Source:	Teachers, counselors, principals
	Method:	Personal contacts
	Content:	Sources of job information for secondary students
COST: $100. EACH		
CI-5	Source:	Existing district and agency records
	Method:	Retrieval of information from existing records
	Content:	Ratios of MCUSD's guidance personnel to students in comparison with comparable school districts in the state
CI-6	Source:	Parents, community leaders, school staff
	Method:	Formation of a committee
	Content:	Committee recommendations regarding improved career guidance for MCUSD's secondary students
CI-7	Source:	Consultant (Business consultant)
	Method:	Personal contact
	Content:	Financial costs associated with failing to provide adequate career information and guidance to students
COST: $200. EACH		
CI-8	Source:	Teachers, administrators, parents, special service personnel, students
	Method:	Interviews
	Content:	Satisfaction with MCUSD's goals for vocational education
CI-9	Source:	Students (non-college-bound former students)
	Method:	Questionnaire
	Content:	Present employment status of non-college-bound former students
CI-10	Source:	Students
	Method:	Questionnaire
	Content:	Availability and utilization of guidance services

Information Choices for the DROPPING OUT OF SCHOOL Problem

	COST: $50. EACH	
DO-1	Source:	Outside expert
	Method:	Literature search
	Content:	Importance of dropout prevention
DO-2	Source:	Outside expert
	Method:	Attendance at conference
	Content:	Dropout problem among Black youth
DO-3	Source:	Mid City Chamber of Commerce
	Method:	Personal Contact
	Content:	Economic consquences of dropout problem
DO-4	Source:	Existing agency records
	Method:	Literature search
	Content:	Relative earning potentials of high school graduates and dropouts
	COST: $100. EACH	
DO-5	Source:	West Side Coalition
	Method:	Questionnaire
	Content:	Priority of dropout problem relative to other pressing problems in MCUSD
DO-6	Source:	Colleagues (MCUSD's Department of Research)
	Method:	Retrieval of information from existing records, personal contacts
	Content:	Critical evaluation of consultant's report on "Dropouts in Mid City"
DO-7	Source:	Colleagues, outside experts
	Method:	Personal contacts, attendance at meetings
	Content:	Identification and prevention of potential dropouts
	COST: $200. EACH	
DO-8	Source:	Parents, teachers, counselors
	Method:	Formation of a committee
	Content:	Committee recommendations regarding urgency of the dropout problem and use of funds available for retraining dropouts
DO-9	Source:	Consultant (Social psychologist)
	Method:	Personal contact, case studies
	Content:	Sociological and psychological characteristics of MCUSD dropouts
DO-10	Source:	Consultant (Education professor from local university)
	Method:	Personal Contact
	Content:	Educational and personality profiles of potential dropouts

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Developing Information Collection Plans for the Problems:
CAREER INFORMATION AND GUIDANCE and DROPPING OUT OF SCHOOL

Now you can compare your information choices for these two problems with the choices the developers judged to be most appropriate for each of the criteria that determine seriousness of problems. To judge the effectiveness of each information collection plan, look at:

a. The criteria for which your team indicated a need for more information (ratings of "2" and "3") on Worksheet 4;

b. The information choices you specified on Worksheet 5;

c. The choices checked below, which the developers judged most appropriate for the criteria you rated "2" or "3":

	CAREER INFORMATION AND GUIDANCE Information Choices that Appear Appropriate									
Criterion	CI-1 $50	CI-2 $50	CI-3 $50	CI-4 $50	CI-5 $100	CI-6 $100	CI-7 $100	CI-8 $200	CI-9 $200	CI-10 $200
a. How large is the discrepancy between existing and desired states?		✓		✓	✓			✓	✓	✓
b. What proportion or group of students is affected by the problem?		✓							✓	✓
c. How important is the problem to school-related groups?	✓					✓		✓		
d. What are the financial costs of the existence of the problem?							✓			
e. What related problems may be alleviated if the problem is solved?									✓	
f. How soon is action on the problem required?			✓			✓				

DROPPING OUT OF SCHOOL Information Choices That Appear Appropriate										
Criterion	DO-1 $50	DO-2 $50	DO-3 $50	DO-4 $50	DO-5 $100	DO-6 $100	DO-7 $100	DO-8 $200	DO-9 $200	DO-10 $200
a. How large is the discrepancy between existing and desired states?						✓				
b. What proportion or group of students is affected by the problem?		✓				✓	✓		✓	
c. How important is the problem to school-related groups?	✓				✓			✓		
d. What are the financial costs of the existence of the problem?			✓	✓						
e. What related problems may be alleviated if the problem is solved?				✓					✓	✓
f. How soon is action on the problem required?								✓		

To determine whether you got the necessary information at the least cost, total the cost of each information plan. Did you save any money out of the $600 budget for each problem?

Discuss with the other members of your team whether the information plans you developed appear to be cost effective. If you have any questions about how to judge the cost effectiveness of your information plans, discuss them with the Coordinator.

Module Five

ARE THE PROBLEMS VALID?

Overview

In Module Four, you developed information collection plans to satisfy particular information needs. In this module you will use the information collected to judge whether particular problems are valid. You encountered the idea of validity in Module Three. Now you will learn what type of information determines the validity of problems, and what conclusions you can reach as to the validity of a given problem. You will also learn when to redefine problems after you have collected additional information about them.

When you have completed this module, you should be able to:

1. Explain how the validity of problems can be assessed.

2. Describe the circumstances under which problems need to be redefined.

3. Summarize additional information received about a problem, by identifying items of information pertinent to each of the criteria that determine seriousness of problems.

4. Judge whether several problems are valid, valid only in part, invalid, or whether their validity cannot be determined from the information available, given appropriate information to make such judgments.

5. Identify problems that need to be redefined after additional information has been collected.

6. Write new problem definition(s) for problems that need to be redefined, which meet the four criteria for an adequate problem definition.

I. Judging the Validity of Problems

At this stage of the problem analysis process, you should be prepared to judge the validity of the problems that you have been analyzing. You have already defined the major problems signalled in terms of existing and desired states and collected additional information needed to analyze those problems fully. Now you must judge whether the information collected about each problem indicates that the problem is valid, that is, whether the information verifies that the alleged discrepancy between the existing and desired states actually exists.

The information that you obtained through implementation of your information collection plan should have included both information that assesses the existing state at issue, and information that assesses the corresponding desired state. Your task in determining whether a particular problem is valid then becomes one of analyzing all the available information about the existing and desired states, and measuring whether a discrepancy of a significant size exists between them.

This task is made considerably easier if you were able to collect information that specifies the existing and desired states in comparable terms. For example, suppose you were validating a problem concerning high school students' attitudes toward school. If the information concerning the existing state specified that students' enjoyment of school averaged only 3.5 on a 7-point rating scale, while the information concerning the desired state specified that no more than two percent of the students should drop out of school during high school because of dislike for school, you would have great difficulty ascertaining whether a discrepancy exists, and, if so, how large it is. Your task would be simplified considerably if the desired state had been specified in terms comparable to the existing state, such as that students' rated enjoyment of school should average at least 5.5 on a 7-point scale.

In judging whether the discrepancy found between the existing and desired states is significant, you should first be concerned with its practical significance, i.e., whether the difference is large enough to make a difference, practically speaking. In the preceding example, if your desired state were that on the average students' rated enjoyment of school be at least 5.5 on a 7-point scale and you found that the average score was 5.4, you might conclude that the discrepancy was too small to be practically significant. Even if this difference were statistically significant, you would be saying that the difference is not great enough to be of practical concern, and you would therefore judge the problem not to be valid. Practical significance is thus a more important consideration than statistical significance in judging the validity of problems in your district. However, in some cases, where it is possible, you may also want to test statistical significance, since a discrepancy may appear large but may be explainable as due to chance sampling or measurement errors, in which case it would not be statistically significant. If you use tests of significance, you may decide to reserve the "valid" judgment for problems that prove to be both statistically and practically significant. There is a variety of statistics that can be used to test the significance of one or more differences; you should consult books on educational statistics to determine which are appropriate for the problems you want to analyze.

Once you have collected the information with which to judge validity, you may reach one of several different conclusions:

1. You may conclude that the problem as initially defined is valid, i.e., the available information indicates that there is a significant discrepancy between the existing and desired states. The additional information you collected may specify the existing and desired states more precisely than did the initial problem definition, but generally speaking the initial definition is confirmed by the additional information.

2. You may conclude that the problem as defined is valid only in part, i.e., that the information available establishes the existence of a discrepancy for only a specific aspect of the initial problem statement, and proves remaining aspects of the problem statement to be invalid. This conclusion is often appropriate when one's initial problem definitions are based on scanty information and consequently are phrased quite broadly. The information you obtain may show the problem to be valid for only some of the student behaviors, only some of the particular groups of students, or only some of the grade levels alleged.

3. Another conclusion you may reach after analyzing all your information about a problem is that the problem is invalid. Perhaps the existing state is not actually as bad as was claimed, or the desired state expressed by the larger school community turns out to be not so high as that of the original source of the problem signal(s). Thus, there may be no discrepancy between the existing and desired states, the discrepancy found to exist may simply be too small to be of practical significance, or the existing state may even be found to be higher than the level specified as desired.

4. You may also legitimately conclude that the validity of the problem is impossible to determine from the information available. This conclusion may be based on any of several quite different possibilities: the information may be meager, or may not pertain to both the existing and desired states of the problem; the information may be indefinite, so that the existing and desired states cannot be precisely specified; the information may be conflicting, in that different items of information convey different versions of the existing and/or desired states; or the information you need may simply not be available at this time and your decision as to the problem's validity must be delayed.

It takes a great deal of time and effort for instructional planners to validate every problem that is alleged to exist in their schools. Let us review some of the reasons why the process of validating problems is worth this expenditure of time and effort.

1. Because you probably face innumerable problems, you must have some reliable way of weeding out those that deserve further attention from those that do not. Some of the alleged problems are valid for your school district and some are not. You must be able

to discriminate which problems are valid, if you are to avoid being overwhelmed. Since you will generally be working with limited resources (e.g., time, money, personnel, cooperation of staff, students, and parents), the number of problems you attempt to deal with must be narrowed down to correspond to the availability of resources. Your analysis of problems hopefully will allow you to eliminate some problems that prove to be invalid, and leave you with a smaller number of problems to deal with.

2. Validating problems also enables you to pare your work down to manageable proportions by narrowing the scope of individual problems. Problems must often be defined initially in broad, indefinite terms, since they can only be based on the information conveyed by problem "signals." When you validate problems based upon more extensive information, you may discover that the entire problem as initially defined is not valid, but that a smaller, more specific aspect of the original problem statement is valid. In other words, when problem statements are validated, they may be redefined in more specific terms that will provide greater direction in selecting solutions that are specific to the problem.

3. We are not suggesting that you take the trouble to validate problems purely for your own intellectual curiosity. As an instructional planner, you are probably in the crossfire of commentary and controversy about what the schools are doing and what they should be doing. You must be able to justify your actions, as well as your decisions not to take action, concerning problems to many different school-related groups. Suppose, for example, that you have judged "overly high dropout and failure rate" to be an invalid problem for your district. What do you say to critics who still maintain that this is a problem with which the schools should deal? You can justify your decision not to act on this problem by showing them how you arrived at your specification of the desired state, what data were gathered to establish the existing state, and how the discrepancy between the two was proved to be neither statistically nor practically significant. Of course, people may always argue that the desired state was set too low. When collecting information to assess the desired state, you should strongly urge school-related groups to specify the desired state that will be acceptable to them, even though they might desire the "ideal" state of student outcome.

II. Redefining Problems

Earlier it was stressed that the initial definition of problems, based only upon problem signals that have been received, should be considered tentative because problem signals alone will rarely provide sufficient information for a well-defined problem statement. Earlier four criteria were suggested for assessing how well a problem has been defined. An adequate problem definition should specify:

1. the curricular or instructional areas involved,
2. the particular student groups affected,
3. the grade levels at which the problem is occurring, and
4. the student behaviors involved.

Now that you have gathered additional information to enable you to judge the validity of problems, you are also better prepared to write problem definitions that will satisfy the four criteria above.

Every problem you have analyzed need not necessarily be redefined. But generally speaking, it is advisable to redefine the problems you judge to be valid to take into account the additional information that has come to your attention as a result of your information collection plan. Especially if the new information collected includes information about one or more of the criteria for well-defined problem statements that was not initially available to you, you should be sure to rewrite the problem definition to include that information.

Problems that you judge to be valid only in part must always be redefined, to eliminate the invalid aspects of the original problem statement. For example, information collected to analyze the validity of a problem involving poor reading ability of minority students may reveal Mexican-American students to be the only ethnic group of students whose performance in reading falls well below grade level. This problem would be judged to be valid only in part, because it is only valid for one particular subgroup (i.e., Mexican-American students) of the larger group allegedly affected according to the initial problem statement (i.e., minority students). The problem should then be redefined to limit its reference to the group involved. Subsequent analysis of potential solutions to this problem can then focus on those solutions particularly relevant to Spanish-speaking students.

Module Five Self-Test

Complete this self-test to assess your comprehension of major concepts presented in Module Five. When you have completed the self-test, you may review the suggested responses beginning on page 201.

1. Once information has been collected about the existing and desired states of a problem, how does one determine whether the problem is valid?

_____

_____

_____

_____

2. Under what conditions must problems be redefined? (Check as many answers as apply.)

_____ a. When additional information about a problem becomes available.

_____ b. When a problem is judged to be valid only in part.

_____ c. When one or more of the criteria for a well-defined problem can be better met based on additional information received.

_____ d. When evidence is collected showing the problem to be invalid.

3. Listed below are some possible conditions that might exist after school decision makers have collected information to determine the validity of a number of student outcome problems. Given each condition, decide which of these four validity ratings would be most appropriate:

   V (valid)
   P (valid only in part)
   I (invalid)
   ? (validity impossible to determine from the information available)

   Mark the letter of the appropriate rating before each condition.

   _____ a. The discrepancy between the existing and desired states is found to be statistically significant but too small to be of practical significance.

   _____ b. The information is indefinite, so that the existing and desired states cannot be precisely specified.

   _____ c. The existing state is found to apply to only some of the student groups originally specified in the problem statement.

   _____ d. The discrepancy between existing and desired state is found to be of practical significance.

   _____ e. The information is found to be conflicting, i.e., different items of information convey different versions of the existing and/or desired states.

   _____ f. The existing state of student learning is found to be higher than the level specified as the desired state.

   _____ g. The problem as initially defined is found to be too broad to correspond to the information collected.

   _____ h. The discrepancy between existing and desired states is found to be both statistically and practically significant.

4. Below are four problem statements and a brief summary of the information collected to establish the validity of each. Decide which of these validity ratings is most appropriate for each problem:

   V (valid)
   P (valid only in part)
   I (invalid)
   ? (validity impossible to determine from the information available)

   Mark the letter of the appropriate rating before each problem statement, and briefly explain your reason(s) for rating each problem as you did.

___ a. Problem: The classroom misbehavior of many elementary students prevents their classmates from efficiently completing their lessons; students should be well behaved in class so that teachers will not need to interrupt classroom learning activities to handle discipline problems.

   Information: Elementary teachers estimate the mean number of serious discipline problems they must deal with in their classrooms each month to be: grade 1, 1.4; grade 2, 1.5; grade 3, 2.1; grade 4, 1.8; grade 5, 4.8; and grade 6, 5.3. Teachers at all grade levels report they desire well-behaved classes, but only fifth- and sixth-grade teachers complained that "rudeness to teachers" and "lack of respect for classmates' right to undisturbed study time" were characteristic of a large number of students in their classes.

   Reason for Rating: _____

   _____

   _____

   _____

___ b. Problem: The creative abilities of elementary students are not being adequately developed; they should be allowed to participate in a variety of creative activities with their classmates.

   Information: Teachers estimate that elementary students at every grade level (K-6) spend 4-8 hours a week in art work, singing and instrumental music, folk and modern dancing, dramatic productions, poetry reading, and creative writing. A random sample of 20 elementary students were interviewed by a curriculum coordinator; he found that 17 of the 20 students (85 percent) judged their schools' art and recreation programs very satisfactory in giving them an opportunity to express themselves creatively.

   Reason for Rating: _____

   _____

   _____

   _____

___ c. Problem: Students lack an adequate understanding of the human body and its biological processes; they should be aware of how their bodies function and how they can keep them in good physical condition.

Information: Random samples of 3rd-, 6th-, 9th-, and 12th-grade students correctly answered 8%, 17%, 34%, and 49%, respectively, of the items on a 60-item test on understanding of human biology. Results of last year's needs survey showed that parents ranked "understanding of the relationship of diet, exercise, and rest to good health" and "understanding of the human body and its biological processes" 8th and 15th respectively, out of a list of 48 possible instructional areas which the district should give greater emphasis.

Reason for Rating: _____

_____

_____

_____

_____

___ d. Problem: Black students in our district have a negative self-image; they should be helped to develop a sense of pride in their abilities and in their personal and ethnic characteristics.

Information: District counselors say they have counselled a considerable number of Black students whose self-confidence was quite low. Black parents interviewed claimed to be proud of the sense of racial and cultural identity their children possess.

Reason for Rating: _____

_____

_____

_____

_____

Suggested Responses

for Module Five Self-Test

Please do not look at the Suggested Responses until you have attempted all the items on the Self-Test.

1. Once information has been collected about the existing and desired states of a problem, how does one determine whether the problem is valid?

By determining whether a significant discrepancy exists between the existing and desired states. You might consider only whether the discrepancy is of practical significance, or you might also evaluate the statistical significance of the difference between existing and desired states.

2. Under what conditions must problems be redefined? (Check as many answers as apply.)

_____ a. When additional information about a problem becomes available.

__✓__ b. When a problem is judged to be valid only in part.

__✓__ c. When one or more of the criteria for a well-defined problem can be better met based on additional information received.

_____ d. When evidence is collected showing the problem to be invalid.

Note: *Problems need not be redefined every time additional information is collected (item a), but only when the information more precisely specifies one or more of the criteria for a well-defined problem (item c), or suggests that only part of the problem is valid (item b). If a problem has been shown to be totally invalid, it need not be redefined (item d).*

3. Listed below are some possible conditions that might exist after school decision makers have collected information to determine the validity of a number of student outcome problems. Given each condition, decide which of these four validity ratings would be most appropriate:

   V (valid)
   P (valid only in part)
   I (invalid)
   ? (validity impossible to determine from the information available)

   Mark the letter of the appropriate rating before each condition.

   I a. The discrepancy between the existing and desired states is found to be statistically significant but too small to be of practical significance.

   ? b. The information is indefinite, so that the existing and desired states cannot be precisely specified.

   P c. The existing state is found to apply to only some of the student groups originally specified in the problem statement.

   V d. The discrepancy between existing and desired state is found to be of practical significance.

   ? e. The information is found to be conflicting, i.e., different items of information convey different versions of the existing and/or desired states.

   I f. The existing state of student learning is found to be higher than the level specified as the desired state.

   P g. The problem as initially defined is found to be too broad to correspond to the information collected.

   V h. The discrepancy between existing and desired states is found to be both statistically and practically significant.

4. Below are four problem statements and a brief summary of the information collected to establish the validity of each. Decide which of these validity ratings is most appropriate for each problem:

V (valid)
P (valid only in part)
I (invalid)
? (validity impossible to determine from the information available)

Mark the letter of the appropriate rating before each problem statement, and briefly explain your reason(s) for rating each problem as you did.

P a. Problem: The classroom misbehavior of many elementary students prevents their classmates from efficiently completing their lessons; students should be well behaved in class so that teachers will not need to interrupt classroom learning activities to handle discipline problems.

Information: Elementary teachers estimate the mean number of serious discipline problems they must deal with in their classrooms each month to be: grade 1, 1.4; grade 2, 1.5; grade 3, 2.1; grade 4, 1.8; grade 5, 4.8; and grade 6, 5.3. Teachers at all grade levels report they desire well-behaved classes, but only fifth- and sixth-grade teachers complained that "rudeness to teachers" and "lack of respect for classmates' right to undisturbed study time" were characteristic of a large number of students in their classes.

Reason for Rating: *This problem appears to be valid only in part, because recurrent classroom misbehavior appears to be a valid problem only for fifth- and sixth-graders, not for students in all elementary grades.*

I b. Problem: The creative abilities of elementary students are not being adequately developed; they should be allowed to participate in a variety of creative activities with their classmates.

Information: Teachers estimate that elementary students at every grade level (K-6) spend 4-8 hours a week in art work, singing and instrumental music, folk and modern dancing, dramatic productions, poetry reading, and creative writing. A random sample of 20 elementary students were interviewed by a curriculum coordinator; he found that 17 of the 20 students (85 percent) judged their schools' art and recreation programs very satisfactory in giving them an opportunity to express themselves creatively.

Reason for Rating: *This problem appears to be invalid, because elementary students are presently participating in a variety of creative activities every week, and a majority feel that the schools are very satisfactory in the area of allowing them creative expression.*

V c. Problem: Students lack an adequate understanding of the human body and its biological processes; they should be aware of how their bodies function and how they can keep them in good physical condition.

Information: Random samples of 3rd-, 6th-, 9th-, and 12th-grade students correctly answered 8%, 17%, 34%, and 49%, respectively, of the items on a 60-item test on understanding of human biology. Results of last year's needs survey showed that parents ranked "understanding of the relationship of diet, exercise, and rest to good health" and "understanding of the human body and its biological processes" 8th and 15th respectively, out of a list of 48 possible instructional areas which the district should give greater emphasis.

Reason for Rating: *This problem appears to be valid, because test results indicate that students' understanding of human biology is very low at all grade levels, and parents rank understanding of "the relationship of diet, exercise, and rest to good health" and of "the human body and its biological processes" among the top third of instructional areas which should receive greater emphasis.*

? d. Problem: Black students in our district have a negative self-image; they should be helped to develop a sense of pride in their abilities and in their personal and ethnic characteristics.

Information: District counselors say they have counseled a considerable number of Black students whose self-confidence was quite low. Black parents interviewed claimed to be proud of the sense of racial and cultural identity their children possess.

Reason for Rating: *The validity of this problem appears to be impossible to determine from the information given, because the information provided by counselors seems to conflict with that provided by parents, and there is no definite indication of the proportion of Black students that is being referred to by either group.*

MCUSD NEWS

IPT SAYS SOME ALLEGED PROBLEMS MAY NOT BE VALID IN MCUSD SCHOOLS

Feb.___ MCUSD's Instructional Planning Team has reported that the information needed to complete their analysis of problems in the district has now been collected and analyzed. They are now reviewing that information, along with information collected earlier in the year, to begin to draw conclusions about what are MCUSD's most pressing problems.

"Our immediate task is to summarize all the information that's been collected about each problem," explained the spokesman for the IPT. "This is important for two reasons: First, organizing all the pertinent information according to the factors that determine validity and seriousness of problems will enable us to make those judgments more rationally. Second, distilling the most important aspects of the information will allow us to inform District staff and community members of the basis for our judgments."

"Before we assign priorities to the problems, we may have to eliminate some that apparently are not really valid in MCUSD. We will also need to redefine some of our original problem statements now that we have more complete information."

The IPT feels their experience this year has demonstrated that analyzing problems must be an on-going activity of the schools. Since they began their investigation in September, several additional problems requiring careful study have been brought to their attention: Bilingual Instruction, Instrumental Music, and Playground Activity. Information collected and summarized about these problems by a consultant has now been turned over to the IPT so that they can include these problems when making their judgments of the validity and relative seriousness of problems facing MCUSD.

INSTRUCTIONS FOR FIRST TEAM ACTIVITY

Summarizing Additional Information

Your Instructional Planning Team will now review and summarize the information collected according to the information plans you developed during Module Four. Proceed as follows:

1. Remove and separate the cards that follow this page. Each card corresponds to one of the information choices you could have included in your information plans. The green cards refer to the problem of Achievement in Basic Skills; the salmon cards refer to Career Information and Guidance; and the beige cards refer to Dropping Out of School.

2. Check the numbers of the information choices you selected for each problem on your team copy of Worksheet 5 (Developing Information Collection Plans). Find the cards with the same numbers as the information choices you selected. DO NOT USE THE CARDS THAT WERE NOT INCLUDED IN YOUR INFORMATION PLANS.

3. Retrieve the information summaries for the Achievement in Basic Skills, Career Information and Guidance, and Dropping Out of School problems--either your team copies of Worksheet 3 (Summarizing Available Information) or the developer-written information summaries on pages 123-124 and 133-136.

4. Identify the items of information in each set of cards that pertain to each of the six criteria of seriousness listed on Worksheet 3. Remember that the information you collected will probably vary in terms of its applicability, objectivity, and/or reliability.

5. Have one member of your team summarize the new information you have identified on Worksheet 3. Either add the new information below the earlier summaries or, if you need more space, use extra copies of Worksheet 3 that were not used during Module Three.

WHEN YOU HAVE FINISHED SUMMARIZING THE INFORMATION ABOUT ALL THREE PROBLEMS (OR, IF YOU PREFER, AS YOU COMPLETE EACH INFORMATION SUMMARY), COMPARE YOUR TEAM'S INFORMATION SUMMARIES WITH THE SUGGESTED RESPONSES ON PAGES 211-216.

(Since it could not be predicted which information choices each team would select, the Suggested Responses summarize all the information cards. Remember that your team's summaries are based on only a selected number of the information cards and therefore will not be as comprehensive as the Suggested Responses. The number(s) of the card(s) from which each summary statement was derived is indicated in parentheses.)

National Importance Attached to Basic Skills Achievement

The following are selected quotes from an article by the U. S. Commissioner of Education, concerning "The Right to Read."

1. "What are the basic skills which you must have before leaving school in order to participate fully in our economy? I believe almost all of us would agree that the ability to read heads our list of 'musts.'"
2. "We should immediately set for ourselves the goal of assuring that by the end of this decade no one shall be leaving our schools without the skill and the desire necessary to read to the full limits of his capability."
3. "Our schools' failure to teach young people to read represents a barrier to success that for too many young adults produces the misery of a life marked by poverty, unemployment, alienation, and, in many cases, crime:
   --One out of every four students has significant reading deficiencies.
   --In large city school systems up to half of the students read below expectations.
   --There are more than three million illiterates in our adult population.
   --Half of the unemployed youth, ages 16-21, are functionally illiterate.
   --Three-quarters of the juvenile offenders in major cities are two or more years retarded in reading.
   --In a recent U.S. Armed Forces program 60.2 percent of the young men fell below grade seven in reading and academic ability."

Economic Problems Associated with MCUSD's Low-Achieving Minority Students

A member of the MCUSD Instructional Planning Team attended several meetings of the Committee of Concerned Businessmen of Mid City. He called to the attention of his colleagues the following points:

1. "According to the businessmen I spoke to, approximately 65% of those who don't pass qualifying examinations for jobs in Mid City, or who are hired on a trial basis because their entry-level skills are below acceptable levels, are Black and Mexican-American young men who graduated from Mid City high schools in the last 1-3 years.
2. "Many of these young men, claim the businessmen, cannot read, write, spell, or perform mathematical computations above an eighth grade level.
3. "Mid City's industrial and commercial firms are distressed at the prospect of having to spend money now allocated for expansion purposes on re-educating employees in areas that should have been covered by the MCUSD."

Committee Recommendations Regarding Equal Educational Opportunity for Low-Achieving, Low-Income Students

TO: MCUSD Central Office Staff
FROM: Citizens' Committee on Equality of Educational Opportunity
SUBJECT: Preliminary Report

The Citizens' Committee on the Equality of Educational Opportunity recommends that MCUSD strive:

1. To educate children of low-income backgrounds without "middle-classizing" them.

2. To stimulate teachers to expect more and work for more from these youngsters. This will prevent patronization and double-track systems where the minority child never arrives on the main track.

3. To develop techniques, possibly including special audio-visual materials, language labs, and teaching machines, appropriate for the cognitive styles of minority children.

4. To train the teacher to use techniques such as role playing and visual aids to elicit the special cognitive styles and creative potential of minority children.

Number and Ethnic Background of MCUSD Students Receiving Failing Grades

BS-4

568 MCUSD teachers were surveyed to determine the proportion of students from various ethnic groups who were failed by MCUSD teachers during the past school year. 535 returned forms were analyzed:

Grade	Total Number of Students Failed	Caucasians		Blacks		Mexican-Americans		Orientals	
		No.	%	No.	%	No.	%	No.	%
1	74[a]	21	29%	36	48%	16	22%	1	1%
2	71[a]	17	24%	35	49%	18	25%	1	2%
3	84[a]	18	21%	50	60%	15	18%	1	1%
4	92[a]	25	27%	48	52%	17	19%	2	2%
5	80[a]	29	36%	40	50%	10	13%	1	1%
6	176[b]	69	39%	79	45%	26	15%	2	1%
7	680[c]	270	40%	273	40%	125	18%	12	2%
8	652[c]	260	40%	299	46%	85	13%	8	1%
9	718[c]	227	32%	346	48%	136	19%	9	1%
10	735[c]	136	19%	412	56%	176	24%	11	1%
11	704[c]	113	16%	436	62%	142	20%	13	2%
12	669[c]	166	25%	355	53%	140	21%	8	1%
All Grades	4735	1351	29%	2409	51%	906	19%	69	1%

a. Number of students who were retained in same grade at end of year.
b. Number of students failed increases in 6th grade because sixth-graders attending MCUSD's Middle School are assigned separate grades for each subject.
c. Number of failing grades assigned to students in required subjects.

Causes of Low Academic Achievement of Low-Income Students

Two trained interviewers were hired by the District to visit the local State University campus and talk with several faculty members in the School of Education about low-achieving, low-income students. They sent a memorandum to the Instructional Planning Team, stressing these points made by the interviewees:

1. The schools must begin to recognize the positive features of the cognitive style, the mental style or way of thinking, characteristic of children from low socio-economic groups.
2. The whole style of learning of these children is not set to respond to oral or written stimuli. They respond much more readily to visual, kinesthetic signals. We should remodel the schools to suit the styles and meet the needs of these children. But no matter how much we change the school to suit their needs, we nevertheless have to change the children in certain ways, namely, reading, formal language, test taking, and general "know-how."
3. Despite language or verbal deficits supposedly characteristic of low-income children, these children are quite verbal in out-of-school situations, for example, in conversation with their peers. The quality of language employed has its limitations, however, and herein lies the deficit. The difference is between the formal language in a written book and the informal, everyday language. There is no question that there is a deficit in formal language. But too many people have come to believe that this formal deficit in language means that people from lower socio-economic groups are characteristically nonverbal. On the other hand, if the schools are aware of the positive verbal ability of these pupils, teachers might look for different techniques to bring out their verbal facility.

Incidence of Placement of Low-Achieving Students in Classes for Educationally Handicapped or Educable Mentally Retarded

John Goodman, spokesman for the Special Education teachers, stated that:

1. Out of 285 students enrolled in Educationally Handicapped classes, 133 (47%) were Black and 67 (23%) were Mexican-American; out of 96 students enrolled in Educable Mentally Retarded classes, 48 (50%) were Black and 26 (27%) were Mexican-American;

2. Most of the students from these two groups are neither educationally handicapped nor retarded, but are so-called "low-achievers" who have not responded positively to the instructional program;

3. Two to four times as much money per pupil is spent on students in EH or EMR classes compared to the amount spent on students in regular schools. Students presently in EH or EMR classes who don't actually belong there should be transferred back to their original schools. The funds supporting them in EH-EMR classes should be re-allocated to the regular schools for basic education in fundamental English and mathematics skills.

4. In this way the large number of Black and Mexican-American students, not only in EH-EMR classes, but throughout the District, who year by year fall behind their classmates in basic skills achievement, would begin to receive the urgent and properly directed attention they need.

Evaluation of MCUSD's Instructional Program as it Relates to Blacks and Mexican-Americans

An Education Professor at the local State College campus was briefed by Superintendent Redford about conditions in the District prior to beginning his own investigation. At an IPT meeting, he made the following remarks:

"I was struck by a recent advertisement in the New York Times book review section depicting a young Black boy reading a book on 'Dick and Jane at the Farm.' The caption, in large bold print, was:

*See the nice book.
*See the big boy read the nice book.
*See the big boy lose interest in school."

"Unfortunately, many Black and Mexican-American students going to school in Mid City experience their education precisely this way. It doesn't take long for a Black child who lives in Mid City to become bored with the rural adventures of Dick and Jane. And the result of such boredom often is the destruction and termination of the child's schooling."

"Reading must be made relevant to the life styles of the many students for whom social and economic deprivation has led to educational retardation. In Mid City, as in other urban areas across the country, a disproportionate number of students from the Black and Mexican-American communities simply cannot read, write, and perform mathematical operations at anything beyond the most elementary levels."

"Although I would like to, I cannot promise you any massive new infusion of Federal funds. MCUSD had better take a hard look at how it is using the funds already on hand and do some serious reordering of priorities. It is imperative that existing dollars go first to those students whose needs are foremost."

Absenteeism and Tardiness Rates for Low-Achieving Minority Students

To determine if low achievement of large numbers of culturally different students was associated with attendance problems, you phoned the curriculum coordinators and asked them to determine the average number of absences and tardinesses during the last school year for Black and Mexican-American students whose grade point averages are in the lowest quartile for their class, and then to compare these averages with school-wide averages. The coordinators phoned in these findings after a few days:

Unexcused Absences and Tardinesses of Low-Achieving Students From Culturally Different Groups during Last School Year

High School	School-Wide Average	Average for Culturally Different Students in Lowest Quartile of Class
Unexcused Absences:		
Hamilton	11.4	19.5
Clark	13.7	26.5
Garfield	9.8	18.6
Unexcused Tardinesses:		
Hamilton	30.8	54.2
Clark	42.0	102.7
Garfield	28.6	66.6
Elementary*		
Unexcused Absences:	10.1	13.7
Unexcused Tardinesses:	19.4	36.5

*Average for all 18 elementary schools in MCUSD

Importance of Basic Academic Skills to Parents of Minority Students

Approximately 1500 respondents returned questionnaires indicating for 52 statements of potential student outcomes: "Whether the emphasis given to each outcome by the school(s) their child (children) attended should be MORE, the SAME, or LESS, by marking an X in the appropriate column following each statement."

Six statements in the questionnaire concerned possession of basic academic skills. In all six cases, a greater percentage of parents of both Black and Mexican-American pupils felt that there should be MORE SCHOOL EMPHASIS on the development of these basic skills than did either Caucasian or Oriental parents.

In the rank ordering of Black parents' responses, ability to read was ranked 1; ability to write, 2; ability to speak correctly, 4; ability to listen, 11; and performance of mathematical computations and application of number skills, 8 and 13 respectively.

Parents of Mexican-American students ranked ability to speak correctly as 1; ability to read, 2; ability to write, 3; ability to listen 9; and performance of mathematical computations and application of number skills, 6 and 19 respectively.

The three most basic communication skills, that is, the abilities of reading, writing, and speaking, were considered by parents of both Black and Mexican-American students to be among the four top priority emphases for the schools.

BS-10

Achievement Levels of MCUSD Students from Various Ethnic Groups in Reading, Language Arts, and Mathematics

TO: All Central Office Staff
FROM: District Research Office
SUBJECT: Achievement levels of elementary and secondary students in Mid City from various ethnic groups in the basic skill areas (reading, language arts, and mathematics)

The following is a summary of the most recently administered standardized achievement tests given District-wide to students in grades 3, 6, 9, and 12:
In Verbal Ability and Reading Comprehension, Black and Mexican-American students are achieving below grade level at the earliest test administration, and this disparity in achievement increases substantially with each increase in grade. Black students are six months and eight months below grade level, in Verbal Ability and Reading Comprehension respectively, upon entering grade 3. This gap increases to 14 months and 19 months at grade 6, 20 months and 23 months at grade 9, and 32 months and 23 months at grade 12. For Mexican-American students, the gap in achievement grows from two months and five months at grade 3, to 14 months and 21 months at grade 6, 15 months and 13 months at grade 9, and 26 months and 20 months at grade 12.
On the other hand, white and Oriental students are achieving at or above level in almost every instance. If circumstances don't change these gaps will spread even wider. Students from all ethnic groups perform at grade level in mathematics until grade 9. Between grades 9-12, Black and Mexican-American students make only a one-year gain in achievement, whereas white and Oriental students are making full three-year gains. Pupil personnel records show that Black and Mexican-American students elect to take far fewer math courses in high school than white and Oriental students.

Needed Changes in School Guidance Programs

A survey of a national sample of vocational education teachers and school counselors was conducted by the Center for Occupational Education, Lehigh University, concerning needed changes in school guidance programs. The survey suggested a variety of available tools and techniques that should be considered when devising new guidance programs, e.g.:

A guidance role for teachers. The teacher's contribution to the guidance program often is overlooked inadvertently. The survey identified areas in which teachers could be of assistance and expressed willingness to contribute. Using teachers effectively as part of the program necessitates not only programming specific goals and functions for the teacher, but also being mindful of the teacher's total academic load.

The counselor's role in developing the school curriculum. Due to the counselor's strategic position within the school, he should be able to provide valuable feedback for evaluating the effectiveness of educational programs. His knowledge of college admission requirements, occupational requirements, and of reports from students, parents, and teachers should provide a helpful input in reshaping curriculum.

Counselor training. Counselor training programs should consider including internship options appropriate for such different guidance settings as vocational education, junior high schools, industry, and elementary schools. Each counselor could elect those internship options which are most appropriate for his professional goals.

Students' Knowledge of Career Options and Training Requirements

At the request of the Instructional Planning Team, a guidance counselor from Clark High School of MCUSD interviewed the parents of 12 Clark students to determine whether, in their opinion, their children were well informed about career options and training needed to pursue various careers. The counselor reported that, of twelve parents interviewed, ten felt their children were quite well informed on these matters, and two reported that their children were adequately informed. When asked for information concerning the characteristics of the parents and students sampled in the interviews, the counselor reported that the students were all taking part in a special study concerning the needs of gifted students.

CI-3

Board of Education's Position on Improving The Vocational Education Program

Several members of the Instructional Planning Team reviewed recent Press statements and minutes of School Board meetings to assess the extent to which the MCUSD Board viewed a better program of career information and guidance as a high-priority concern. Although the need for improvements in the vocational education program had been discussed in both minutes and Press announcements, this referred primarily to job training rather than the information function. No particular target dates for taking action on the problem were specified.

CI-4

Sources of Job Information for Secondary Students

According to a series of inquiries done by members of the Instructional Planning Team, none of the secondary schools in Mid City employs a counselor whose sole responsibility is distributing to students information about prospective careers or occupational trends. Nor is any one specifically hired to counsel students about what requirements are necessary to qualify for needed, desirable jobs, nor to offer guidance in pursuing post-high-school training opportunities. All these functions are theoretically handled by the District's Business and Vocational Education teachers, and by counselors at each school.

Ratios of MCUSD's Guidance Personnel to Students in Comparison with Comparable School Districts in the State

The District files were examined for current high school enrollment and guidance staff figures. From these figures, the ratios of guidance personnel to students were computed for comparison to state averages.

Total MCUSD secondary school enrollment:	5,500
Number of secondary school counselors:	21
Counselor-student ratio = $\frac{5,500}{21}$ =	1:260
Number of secondary guidance clerks:	7
Clerk-student ratio = $\frac{5,500}{7}$ =	1:786

A member of the IPT drove to the capital to visit the State Department library. After several hours of searching he found a three-year old State Department report indicating the average counselor-student ratio for 136 secondary school districts throughout the state to be 1:325; the recommended ratio was 1:250. The data were not broken down by county or by the social, economic, ethnic or geographical characteristics of different school districts.

Committee Recommendations Regarding Improved Career Guidance for MCUSD's Secondary Students

A committee of parents, employers, community leaders, and school staff was appointed to study the problem of providing better career guidance for MCUSD secondary students. After a series of meetings they produced the following policy statement:

1. No longer can the emphasis be on matching the best man with an existing job; it must be placed on providing a suitable job for each man or equipping the man to fill a suitable job.

2. Less emphasis must be placed on manpower as an economic resource and more on employment as a source of income and status for workers and their families.

3. Career consciousness must be integrated throughout the schools in order to enlarge the number of options for individual pupils--both in terms of occupations and higher education.

4. The study of the world of work is a valid part of education for all children--it documents for youth the necessity of education, both academic and vocational.

Financial Costs Associated with Failing to Provide Adequate Career Information and Guidance to Students

The Instructional Planning Team asked a business consultant to estimate the potential financial costs associated with failing to provide adequate career information and guidance to students who do not plan to continue their education beyond high school. He estimated that students' lack of vocational direction costs them loss of income that may not be regained for as many as 15 years, if ever. Typically, students fresh out of high school flit from one job to another before finding work that is suited to their interests and abilities and/or forego earnings while making up educational and training requirements that could have been brought to their attention and completed during high school.

Satisfaction with MCUSD's Goals for Vocational Education

Structured interviews were conducted with MCUSD teachers (n=5), administrators (n=3), parents (n=6), special service personnel (n=3), and 12th grade (n=8), and 9th grade (n=7) students concerning their satisfaction with the job the schools are doing conerning learning goals for vocational education (total sample=32).

Twenty-three respondents felt there is greater need for students to (1) Find pleasure in doing work. The magnitude of the "need" increased with higher grade levels. Teachers, parents, and 12th graders felt this need more than special service personnel. and 9th graders. (2) Being able to identify skills needed for a job followed a similar pattern to that of learning goal #1 in all respects. (3) Producing a product with a simple tool was felt as a need by a bare majority of the respondents (seventeen), whereas thirteen were satisfied with the extent of this activity and two people felt it is being overemphasized. On the whole, this learning goal appeared to be the least important of all Vocational Education learning goals used in this study. Nineteen respondents desired more emphasis on (4) Awareness of good workmanship, (5) Evaluating work based on standards of a trade or profession, and (6) Being willing to form judgments about one's own work. A substantial increase in the strength of each need from grade to grade was noted.

Present Employment Status of Non-College-Bound Former Students

The Bay County Education Office conducted a questionnaire survey of non-college-bound former students who left high schools in the County at the close of the last academic year. Of the 150 respondents, 110 were graduates and 40 were dropouts. Of those respondents who stated that they had sought employment (a large majority), 42% of the males and 62% of the females reported they were not presently employed. Reasons for job difficulty centered on "inadequate job preparation," "feelings of being unclear about what kind of employment would interest them," "uncertainty about the best procedures for job hunting," and "getting along with fellow employees and supervisors." Respondents suggested that vocational programs should provide:

--More help in deciding what kinds of occupations would be appropriate for individuals' interest and abilities.

--More help in planning career goals before reaching the last year of high school.

--More emphasis on skills that help students to communicate effectively with employers and potential business customers.

Availability and Utilization of Guidance Services

MCUSD's Director of Research submitted a guidance checklist to a random sample of 150 11th and 12th grade students asking them to indicate the guidance services which they have used, and the services needed but not available. His summary of results appears below:

Services	Have Used	Not available but needed
Aid in course selection	89%	6%
Aid in choosing an occupation	52%	9%
Vocational test administration and interpretation	35%	13%
Parent conferences	74%	17%
Evaluation of school progress	79%	13%
Job placement	11%	66%
Learning about the world of work	54%	14%

Importance of Dropout Prevention

The President of the American Association for Curriculum Development said in a recent article, ". . . the central problem for public education is developing an imaginative and far-reaching curriculum with bold new concepts in teaching and with new techniques for the prevention of dropouts, who constitute as much a 10-12 percent of the student enrollment of some of our nation's high schools. Such an instructional program promises the highest potential for modifying the reactions of those students who find school an unrelated life experience in terms of the meaning which they invest in school."

Dropout Problem Among Black Youth

The following statement was made in a speech by an official of the U.S. Department of Health, Education and Welfare at a state conference of guidance counselors:

"The dropout problem is particularly severe among Black youngsters, who comprise a large percentage of today's unemployed youths. Black youths, even high school graduates, experience greater frustration in job finding than do their white contemporaries. In 1962, for example, about one out of every four Black youngsters in the labor force was out of work, compared with about one out of every eight white youngsters. Since 1955, the jobless rate among Black youngsters, according to official reports, has risen faster than among white boys and girls--up about 60 percent among Blacks compared with 30 percent among whites."

Economic Consequences of Dropout Problem

Even though numerically the dropout situation in Mid City is not as serious as it is in other communities, when a youngster elects to quit school before formal completion in order to earn a living, he is in effect removing himself from a potential lifetime income officially estimated at $165,000 for the high school graduate. A 16- or 17-year old simply may not comprehend the enormity of such a decision, or may not possess the maturity of judgment to understand fully his own life situation, enabling him to arrive at such a decision intelligently. Such a youngster needs intensive guidance and counselling.

We live in a fast-tempo, ever-changing, demanding society characterized by a high success-value orientation. With this in mind, educators must not simply write off as failures the young people who follow sudden whims to "go it alone" in a job market, which, unknown to them, is rapidly closing its doors to individuals like themselves. Such youngsters need adult attention, understanding, sympathy and expert guidance to help them appreciate fully the serious consequences of their "decision" which, in all probability, guarantees them permanent retirement from work, before they even begin.

Even a cursory review of the statistics bears this out: The unemployment rate among dropouts is double that of the general population; they are out of work for longer periods; dropouts are identified as that hard core of uneducated young people who perform the most menial and routine work tasks.
(From position paper, Education Committee of Mid City Chamber of Commerce).

Relative Earning Potentials of High School Graduates and Dropouts

MCUSD's secondary curriculum coordinator tried to find some hard data on the relative earning potentials of high school graduates and dropouts. He sent you the attached table from the U.S.Department of Labor:

Major occupation group of high school graduates not enrolled in college and of dropouts

(Percentage distribution of persons 16 to 24 years of age, by sex)

MAJOR OCCUPATION GROUP AND SEX		GRADUATES (by year of graduation)			DROPOUTS (by year last attended school)		
		1964	1965	1966	1964	1965	1966
Males:	Number (in thousands)	352	324	397	316	272	257
	Percent	100.0	100.0	100.0	100.0	100.0	100.0
	Professionals, technical workers, proprietors, and managers	12.8	8.6	4.8	4.2	3.7	2.4
	Clerical and sales workers	15.4	15.8	16.6	5.7	5.9	5.1
	Craftsmen and foremen	11.7	12.1	10.8	19.1	9.6	8.9
	Operatives and service workers	43.6	39.7	41.2	48.2	48.6	49.8
	Laborers	18.5	23.9	26.6	23.0	32.4	33.8
Females:	Number (in thousands)	540	490	449	171	136	117
	Percent	100.0	100.0	100.0	100.0	100.0	100.0
	Professionals, technical workers, proprietors, and managers	3.3	5.1	4.4	2.6	-	1.7
	Clerical and sales workers	69.2	66.1	64.0	15.8	16.2	23.5
	Craftsmen and foremen	.3	.4	.4	1.1	-	-
	Operatives and service workers	25.2	27.1	29.4	74.1	80.2	70.5
	Laborers	1.4	1.2	1.8	6.6	3.7	4.2

Priority of Dropout Problem Relative to Other Pressing Problems in MCUSD

When asked to rank five stated problems in the order in which they were felt to be "urgent, pressing problems in the MCUSD deserving immediate consideration and action," an overwhelming majority of the 253 West Side Coalition members surveyed ranked the problem "Dropouts in the Community" fifth. The other problems were, in order of assigned priority:

1. Minority group treatment in Mid City,
2. Job training for non-college-bound students,
3. Community involvement in the schools, and
4. Drug abuse.

Critical Evaluation of Consultants' Report on "Dropouts in Mid City"

Upon analyzing the study on "Dropouts in Mid City" submitted recently to the Superintendent by a non-staff consultant, the Department of Research concluded that it is misleading in several ways:

1. The report speaks of a 30% rise in "the dropout rate." This statement was based on an increase in dropouts from 85 to 109 over a two-year period. This use of statistical data does not constitute a proper application of the term "rate" since there are no baseline figures to compare the given numbers with.

2. While the number of dropouts has increased, so has the total student enrollment. The dropout rate, as a percentage of the total student population, has remained approximately the same because the District has grown, and will continue to grow. The 109 students who dropped out during the past school year represent just about 2% of MCUSD's total high school enrollment of 5500.

3. Of course the ideal state is to have no dropouts at all, and it is deplorable that the number of dropouts has increased as the enrollment has. A serious problem would arise if the number of dropouts increased in disproportionate numbers when compared to the increase in enrollments. This is not the case now.

4. Neighboring districts of comparable size and composition have a considerably higher number of dropouts and a higher dropout rate.

Identification and Prevention of Potential Dropouts

Potential high school dropouts can be spotted as early as the fifth grade, according to a newly released study by a group of testing researchers. The study, conducted in nearby Horton County, found that a pupil's age may be the "best single predictor" of whether he will fail to graduate from high school. The potential dropout is generally about a year older than his fifth grade classmates, does not participate in extracurricular activities, is in trouble academically, and is scoring significantly lower than his classmates on academic achievement tests.

The researchers found that vocational guidance may be successful in combatting the student dropout problem. They reported that potential dropouts who were exposed to vocational counselling and occupational information group study classes for a year showed less dropping out and fewer transfers than matched controls not exposed to the program.

Committee Recommendations Regarding Urgency of the Dropout Problem, and Use of Funds Available for Retraining Dropouts

The Dropout Study Committee of the MCUSD, while acknowledging the plight of the fairly small number of dropouts in Mid City, wishes to stress that the long-term focus of the District should be on improving those instructional areas which are not only the causes for students dropping out, but are the reasons why many students who stay in school are poorly educated. The Committee found that many non-college-bound students feel their high school classes are no help to them in dealing with their life situations, and do not even help them to master reading and writing skills without which their job prospects are severely limited. The dropout is only a symptom of other problems that now exist in the MCUSD.

It is indeed surprising that, given the magnitude of these instructional problems in the schools, more students have not dropped out. Although resources could beneficially be directed towards re-educating the dropout, in our view the benefits to the individual student and the community as a whole would best be served by concentrating on these in-school deficiencies, for they are more pervasive both in the number of people affected and in the costs paid for their continued existence.

Sociological and Psychological Characteristics of MCUSD Dropcuts

A random sample of the life histories of MCUSD dropouts would seem to suggest the etiology of the dropout syndrome as falling into two groups:

a. Those syndromes which develop slowly out of social and academic failures on the part of the individual to incorporate in his life-scheme orientation those attitudes and values which are in harmony with the larger society.

b. Those syndromes which develop relatively rapidly, due to sudden deleterious influences in the person's social or academic milieu, precipitated either by the socio-physical difficulties of marginal living or the inadequacy of mutually reinforcing social interaction.

Educational and Personality Profiles of Potential Dropouts

The State Association of Curriculum Development has been conducting a long-term study of 400 students who have dropped out of high schools throughout the state over the past two years. A faculty member of one of the local universities who is serving on the Dropout Study Team spent a few hours in MCUSD presenting tentative findings of the study.

The following factors have tentatively been revealed as characteristics of those in the study group:

1. Short attention span
2. Deficiency in reading skill
3. Inability to adapt to school and classroom behavior regulations
4. Social isolation
5. Little or no interest and success in the classroom over a period of several years
6. Low family income
7. Necessity to work to compensate for economic deprivation
8. Average or above average ability, with I.Q.'s ranging from 90 to 130

The researcher emphasized the last factor when he said that "instructional planning to deal with the learning and motivational inadequacies of these students and to maximize their existing abilities is one of the highest priorities for our schools."

Problem Signal Category:

ACHIEVEMENT IN BASIC SKILLS

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*AFT claims the achievement of culturally different elementary students in basic skill areas lag two to four years behind their classmates (12). High school students claim they have been graduated or passed on to higher grades even though they were deficient in basic skills (16). Elementary students whose achievement in basic skills is low have been assigned to EH and EMR classes (21).* *Mid City employers claim that recent MCUSD graduates cannot pass qualifying examinations nor perform basic skills above the eighth grade level (BS-2). Disproportionate numbers of Black and Mexican-American students are failing classes at all grade levels (BS-4). Although quite competent verbally in informal, out-of-school situations, many low income youngsters cannot transfer this ability to the formal language demanded by the schools (BS-5). Black and Mexican-American students perform two to three years below grade level on standardized tests of Verbal Ability and Reading Comprehension by grade 12; they perform at grade level in mathematics until grade 9, but gain only 1 year between grades 9-12, when they take few math courses (BS-10). Boredom with their educational experiences may cause the student deficiencies in basic skills (BS-7).*
b. What proportion or group of students is affected by the problem?	*MCUSD's failure to develop proficiency in basic academic skills primarily affects the District's low-achieving student population, both at the elementary (12) and secondary (1,16) levels. Many of these students are Blacks and Mexican-Americans (1,12), some of whom have been improperly placed in EH and EMR classes (21).* *Standardized test scores (BS-10) and other information collected (BS-4, BS-7) confirm that Black and Mexican-American students are the most seriously deficient in basic academic skills. These students are most frequently turned down for jobs by Mid City businessmen because of poor basic skills preparation (BS-2), and disproportionate numbers have been placed in EH and EMR classes because of low achievement (BS-6).*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*Concern that the schools were not adequately preparing students in basic skills led the State Board of Education to adopt new minimum proficiency graduation standards (1). West Side Coalition criticized the District for graduating students who are not proficient in basic skills (16). Local AFT has called for specialized instructional programs in basic skills for culturally different children (12). Parents have filed a lawsuit against MCUSD for placing their children in EH and EMR classes (21).* *Mid City businessmen are concerned about the low entry-level skills of employees who have not been adequately prepared by MCUSD (BS-2). Black and Mexican-American parents consider instruction in the basic skills the highest educational priority for their children (BS-9).*
d. What are the financial costs of the existence of the problem?	*High school principals fear the financial stability of the District will be weakened by the unexpected burden of retaining students who do not meet the State's minimum proficiency requirements for graduation but would have been graduated in previous years (1). Parents are suing the district for $40,000 in damages for placing their children in EH and EMR classes (21).* *Mid City businessmen fear they may have to reallocate funds for providing new employees with a basic skills education (BS-2). Enrolling "low achievers" in EH and EMR classes costs MCUSD 2-4 times more per pupil than regular classes (BS-6).*
e. What related problems may be alleviated if the problem is solved?	*High school principals feel the retention rate of high school students is certain to increase once the State Board of Education's new high school graduation standards requiring eithth grade competency in reading and mathematics go into effect (1). Unfavorable community reaction to increased failures and retentions of low achieving students is anticipated (1).* *Employment prospects are grim for applicants without proficiency in basic skills (BS-2). Low-achieving students may have different cognitive styles that could be used as the basis for more effective basic skills instruction (BS-5). Student boredom from ineffective reading programs can lead to premature termination of schooling (BS-7). Unexcused absences and tardinesses are considerably higher among low-achieving Black and Mexican-American students than the school-wide average (BS-8).*
f. How soon is action on the problem required?	*The State Board of Education's minimum proficiency standard for high school graduation goes into effect beginning next fall (1).* *Trends in standardized test scores indicate that achievement levels will continue to lag behind unless something is done (BS-10). Mid City businessmen have urged MCUSD to more effectively teach basic skills or else many job applicants will not find work or advance beyond entry-level positions (BS-2). A spokesman for the Special Education teachers termed the basic skills of Black and Mexican American students an "urgent" concern (BS-6), and a consultant said it is "imperative" that reading be made relevant to the life styles of MCUSD's minority students (BS-7).*

Problem Signal Category:

CAREER INFORMATION AND GUIDANCE

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*MCUSD counselors and vocational education teachers complain that other duties (e.g., skill instruction, counselling on personal problems) prevent them from providing good career information and guidance, even though they have the information (18). HEW Advisory Council on Vocational Education claims that the vocational guidance schools are presently providing does not correspond to the nation's occupational needs (22). West Side Coalition charges that MCUSD counselors either lack up-to-date vocational information or simply won't pass the information on to students (24).* *Parents of 16 gifted Clark High School students told interviewers that their children were well or adequately informed about career options and training needs (CI-2). About half the 11th and 12th grade students responding to questionnaires reported they have received aid in choosing an occupation and learning about the world of work; 35% have had vocational tests administered; and only 11% have received job placement assistance (CI-10). MCUSD's guidance counselor/student ratio is considerably better than the statewide average (CI-5), but none of MCUSD's secondary schools employs a full-time person to distribute vocational information to students (CI-4). A community-based committee recommended that "career consciousness be integrated throughout the schools" (CI-6) and a majority of persons interviewed from various school-related groups felt helping students to "find pleasure in doing work" and "be able to identify skills needed for a job" need greater emphasis (CI-8).*
b. What proportion or group of students is affected by the problem?	*Potential dropouts (6) and non-college-bound students (6,24), many of them Blacks and Mexican-Americans, will benefit from improved vocational guidance.* *The questionnaire survey conducted by MCUSD's research department sampled 11th and 12th graders (CI-10). Twelfth graders interviewed expressed greater need for emphasis on vocational education learning goals than ninth graders (CI-8). Of 110 non-college-bound graduates and 40 dropouts who responded on a recent questionnaire that they had encountered job difficulty because of inadequate career information and guidance in high school, 42% of the males and 62% of the females reported they were presently unemployed (CI-9).*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*A national report (22), vocational education staff at the county level (6), a community action group (24), and many teachers and counselors in MCUSD (18) have advocated changes in the vocational guidance program of MCUSD, including more time and assistance for teachers and counselors to provide career information (18).* *School Board appears more concerned with improving the job training aspects of MCUSD's vocational program than the career information and guidance aspects (CI-3). A committee of parents, employers, community leaders and school staff has submitted a policy statement calling for a broader career education program (CI-6). Staff members and students alike agree that the learning goals "finding pleasure in doing work" and "being able to identify skills needed for a job" deserve greater emphasis (CI-8).*
d. What are the financial costs of the existence of the problem?	*Lack of vocational guidance during high school may deprive students of income that may not be regained for up to 15 years (CI-7).*
e. What related problems may be alleviated if the problem is solved?	*Occupational needs of the nation might be better met because vocational training would be better geared to meeting those needs (22). There might be a lower dropout rate if students received good counseling in vocational preparation (6), making the high school program more relevant to the needs of the non-college-bound student (18).* *Unemployed high school graduates and dropouts suggest they would have less job difficulty if the schools would help them to decide what occupations are appropriate for their interests and abilities, and to plan their career goals before leaving school (CI-9).*
f. How soon is action on the problem required?	*The West Side Coalition is demanding action on its grievances (24). Proposals for federal financing of vocational education projects, including needs surveys, staff training, and instruction, must be submitted within six months (9). HEW Advisory Council on Vocational Education claims there is an "urgent need" to get up-to-date comprehensive occupational information into the hands of school counselors to help students make vocational decisions (22).* *Although need for improvements in MCUSD's vocational education program has been discussed by the School Board in meetings and press statements, no target date for taking action on the problem has been mentioned (CI-3).*

Problem Signal Category:

DROPPING OUT OF SCHOOL

SUGGESTED RESPONSES FOR FIRST TEAM ACTIVITY

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*A consultant reports that the dropout rate in Mid City has increased by 30% in the last two years and is expected to keep rising (20). Principal of Garfield High School reports that Garfield's dropout rate of 60 students per year is indicative of a "significant instructional dilemma" for MCUSD (35). A state study suggests that potential dropouts should be identified and provided with counselling in vocational preparation to prevent them from dropping out (6).* *Prominent educators have acknowledged a severe dropout problem due to the schools' failure to motivate students (DO-1, DO-10). MCUSD's Research Department refuted the consultant's original report that the dropout rate is rising; the number of dropouts has increased in proportion to enrollment increases, so the percentage of students dropping out has remained approximately the same and is actually lower than that in comparable districts (DO-6). Dropout Study Committee regards MCUSD's fairly small number of dropouts as a symptom of other more serious problems in the instructional program (DO-8).*
b. What proportion or group of students is affected by the problem?	*The ratio of boys to girls dropping out is 2 to 1, and the highest incidence occurs at the eleventh grade (20). A state study identified potential dropouts as those who fall in the lowest quarter of their class academically, and who do not participate in extracurricular activities (6).* *109 students, or about 2% of the high school enrollment, dropped out in MCUSD during the past year (DO-6). The Chamber of Commerce feels the problem is not numerically serious (DO-3) and the Dropout Study Committee states "it is surprising that more students have not dropped out," given existing instructional inadequacies in MCUSD schools (DO-8). Dropout problem has most serious consequences for Black students, who experience greater frustration in job hunting than whites (DO-2). Dropouts have been characterized as older than their classmates, deficient in reading, unable to adapt to regulations, socially isolated, uninterested in school and extracurricular activities, and average or above average in ability although in trouble academically (DO-7, DO-10).*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*The Special Project Director has suggested forming a dropout study committee composed of representatives of the West Side Coalition, the Chamber of Commerce, and several Mid City manufacturing and industrial firms (4). One MCUSD high school principal calls dropouts "a significant instructional dilemma" for MCUSD (35).* *Educators outside the district regard the prevention of dropouts as one of the highest educational priorities (DO-1, DO-10). Neither the Chamber of Commerce nor the West Side Coalition considers the dropout problem one of the district's most serious problems (DO-3, DO-5). Dropout Study Committee recommends that MCUSD focus, not directly on the re-education of dropouts, but on improvements in the instructional program that will lead to a decreasing number of dropouts (DO-8).*
d. What are the financial costs of the existence of the problem?	*Dropouts who were not prepared for jobs upon leaving high school can cost the State up to $44 each week in unemployment insurance benefits and $170 per month in public assistance payments (36).* *High school dropouts deprive themselves of lifetime earnings estimated at $165,000 (DO-3).*
e. What related problems may be alleviated if the problem is solved?	*The unemployment rate among dropouts is double that of the general population (DO-3) and especially affects young Black dropouts (DO-2). Dropouts tend to perform the most menial and routine work tasks (DO-3, DO-4).*
f. How soon is action on the problem required?	*A consultant and one of MCUSD's high school principals report that the dropout problem is steadily increasing (20, 35).* *Research Department reports that the dropout rate has not grown, but remains proportionate to the secondary enrollment (DO-6). West Side Coalition did not rank the dropout problem among "urgent, pressing problems...deserving immediate consideration and action" (DO-5).*

INSTRUCTIONS FOR SECOND TEAM ACTIVITY

Judging the Validity of Problems

Now you are aready to judge the validity of the problems being analyzed. Assume that, while you have been analyzing the problems signalled at the beginning of the school year (i.e., in Module One), some additional problems have been recognized and information pertinent to each of them has been gathered and summarized. Follow these steps:

1. Obtain copies of the problem definitions and information summaries for the five original problems: Achievement in Basic Skills, Career Information and Guidance, Dropping Out of School, Occupational Skills Training, and Student Dissatisfaction with Curriculum (either your team copies of Worksheet 2 and 3, or the developer-written problem definitions and information summaries).

2. Review the problem definitions and information summaries on the next several pages for the three new problems: Bilingual Instruction, Instrumental Music, and Playground Activity.

3. Based on the information summarized, decide as a team whether each problem as defined is valid, that is, whether there is a significant discrepancy between the existing and desired states of student outcome. The information pertinent to criterion (a) of seriousness, "How large is the discrepancy between the existing and desired states?" will be most helpful in judging validity.

4. On Worksheet 6, page 231, check whether each problem is Valid, Valid Only in Part, Invalid, or its Validity is Impossible to Determine from the Information Available.

5. You may need to redefine some of the problems to take into account the additional information you collected. If you rated any of the problems Valid Only in Part, you must write new problem definitions to eliminate the invalid aspects. If you rated any of the problems Valid, you may want to redefine them to include any additional information you collected. Cross out the original problem definitions and write your new ones below them.

6. Be sure your new problem definitions meet the four criteria for well-defined problems, that is, that they specify: (a) the curricular or instructional area involved, (b) the grade levels at which the problem is occurring, (c) the particular groups of students involved, and (d) the student behaviors involved.

WHEN YOU HAVE RATED THE VALIDITY OF ALL EIGHT PROBLEMS, TURN TO PAGE 233 AND REVIEW THE SUGGESTED RESPONSES.

Problem Signal Category:

BILINGUAL INSTRUCTION

Defining Student Outcome Problems

Existing State of Student Outcome	Desired State of Student Outcome
Primary grade students who speak a language other than standard English (including non-standard English used by Black children) are not learning to read and write their spoken language well because they receive instruction only in standard English.	*In the primary grades, MCUSD students whose spoken language is other than standard English (including Black students) should develop language skills in their spoken language as well as in standard English.*

Problem Signal Category:

BILINGUAL INSTRUCTION

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*Primary students at all 18 elementary schools receive reading and writing instruction exclusively in English; Spanish language instruction is not offered until seventh grade at which time it is taught as a second language. According to the curriculum coordinator, district policy is to assign students entering school who cannot speak English to remedial reading classes where they receive more intensive instruction in standard English. Only four Spanish-speaking teacher aides are assigned to the district's remedial reading program. One of the district's remedial reading teachers reported test results from a small sample of Mexican-American and Oriental elementary students showing that, despite remedial instruction, the verbal ability test scores of these students remained below those of white students on the average, even though the students were tested in their spoken language. The Black Language Curriculum Workshop, organized last year by six MCUSD elementary teachers, has developed and made available to all MCUSD first-third grade teachers curriculum materials to help Black students learn to read and write in the language they are accustomed to speaking. The Black Language Curriculum Workshop (BLCW) materials are now being used by teachers at 16 of the district's 18 elementary schools, and these teachers are no longer evaluating students' written work solely on the basis of standard English grammar and vocabulary.*
b. What proportion or group of students is affected by the problem?	*13% of the Mexican-American students and 4% of the Oriental students who entered Kindergarten or first grade this past September did not speak English at the time.*

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Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*Elementary school principals report they have received over 25 parental requests for bilingual instruction this year. The Latino-American League claims that MCUSD is trying to "middle classize" their children by discouraging use of Spanish or non-standard English in their oral and written classwork.*
d. What are the financial costs of the existence of the problem?	*The Director of Special Education claims that the district's remedial reading budget could be reduced by at least one-half if pupils who do not speak standard English received reading instruction within the regular classroom program.*
e. What related problems may be alleviated if the problem is solved?	*Curriculum specialists report that non-English speaking children develop a greater sense of cultural identity and self-esteem when they are encouraged to develop language skills in their native language. Prominent educators argue that students' skills in reading and writing standard English are also hindered by not providing instruction in their spoken language.*
f. How soon is action on the problem required?	*The Latino-American League has threatened to withdraw their children from MCUSD elementary schools if bilingual programs are not offered on an optional basis by next fall.*

Problem Signal Category:

INSTRUMENTAL MUSIC

Defining Student Outcome Problems

Existing State of Student Outcome	Desired State of Student Outcome
Many MCUSD elementary students who want to learn to play a musical instrument cannot do so because they don't have access to the instruments they need.	*All MCUSD elementary students with demonstrated musical interest and talent should have the opportunity to learn to play a musical instrument.*

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Problem Signal Category:

INSTRUMENTAL MUSIC

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*District policy allows for instruments that cost over $300 to be purchased for provision to students on a loan basis; however, only 5% of the loan instrument budget is allocated for purchase of lower cost instruments, to be made available only in "hardship" cases. The records of the District Music Coordinator show that on the average 78 students at each of the 18 elementary schools take music lessons and/or participate in the school band. At Muir, Tyler, and Montgomery, the three racially unbalanced elementary schools in the district, the average is only 33 students.*
b. What proportion or group of students is affected by the problem?	*The Music Coordinator reports that teachers from Muir, Tyler, and Montgomery have requested low cost loan instruments for more than 40 students so far this year. Since the elementary instrumental music program feeds into the secondary program, the high school bands and orchestras are composed almost exclusively of white students. The large proportion of Black students in the secondary vocal music groups indicates much greater musical interest and talent on the part of Black students, when they have an opportunity to display it, than is apparent from the composition of the secondary instrumental music groups.*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*A memo was received from the instrumental music staff requesting that the district policy regarding loan instruments be changed to allow for purchase of low cost loan instruments so that students from low income families will have the same opportunity to take music lessons as other students. The president of the local teachers' association stated that the association does not consider the problem of insufficient loan instruments as critical as other supply and equipment needs, and said many teachers object to the disruption of their classes by excusing students for music lessons anyway.*
d. What are the financial costs of the existence of the problem?	*The District Music Coordinator reports that the "hardship" budget is rarely used because so many more applications are received than the budget will cover, while many of the expensive loan instruments purchased lie idle because they are not the instruments students want to play.*
e. What related problems may be alleviated if the problem is solved?	*Superintendent Redford contends that the almost all-white composition of the high school marching bands gives the public a distorted image of the district. Colleagues from neighboring districts agree that school morale, attendance, and academic achievement are all enhanced by student participation in the life of the school, such as school band, sports program, etc.*
f. How soon is action on the problem required?	*A teacher from Tyler Elementary School has requested that low cost loan instruments be made available by next semester, in time for a unit she has planned on the history of instrumental music which may stimulate student interest in music lessons. The eight floating music instructors employed by the district say they plan to introduce provision of low cost loan instruments as an issue in teacher negotiations this coming spring.*

Problem Signal Category:

PLAYGROUND ACTIVITY

Defining Student Outcome Problems

Existing State of Student Outcome	Desired State of Student Outcome
Large numbers of MCUSD elementary students are "hanging around" the playgrounds, fighting with other students, and otherwise engaging in unconstructive or violent behavior during the lunchtime and recess play periods.	*MCUSD elementary students should be involved in constructive games and activities during play periods, to foster physical health and a competitive spirit.*

Problem Signal Category:

PLAYGROUND ACTIVITY

Summarizing Available Information

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
a. How large is the discrepancy between the existing and desired states?	*Records indicated that during the six months of school thus far, the number of fighting incidents occurring on the school grounds during play periods for each school was four at Bayside, three at Woodlawn, one at OceanView, nine at Conway, and one at Meadows. The principals of all five schools from which complaints were received admitted that the playground atmosphere is noisy and boisterous but denied that this signifies violence. A consultant who observed the playgrounds of each of the five schools 3-6 times over a one-month period confirmed the original complaint that screams were frequently heard on the playground, but in no instance did he find that actual physical harm or threat was involved. A memo from the district's counsellors stated that the teachers complaining about violence "have minimal experience teaching in an urban, integrated school setting, and their standards for student behavior are of the 'little Lord Fauntleroy' variety."*
b. What proportion or group of students is affected by the problem?	*Although the original complaint mentioned Black male students as the worst offenders, the consultant found no evidence of greater violence or unconstructive activity among boys than among girls, and no notable difference in the playtime behaviors of Black or any other ethnic group of students.*

Criteria of Seriousness	Summary of Information Pertinent to Each Criterion
c. How important is the problem to school-related groups?	*The Committee for Constructive Play, a group of six teachers and seventeen parents representing five MCUSD elementary schools, complained about violence on the playground and requested the central office to investigate the problem of children's play activities. A consultant who interviewed a carefully selected sample of 30 parents of MCUSD elementary students found that the majority did not want children's free time to be structured, particularly not with games of a competitive nature "since kids already get too much of that in the classroom." MCUSD elementary teachers responded to a questionnaire concerning the problem of children's playtime activity. Sixty-five percent of the 215 teachers responding answered "no" to the question: Do you feel that elementary students should be required to engage in a structured program of play and physical activities during lunch and recess periods?*
d. What are the financial costs of the existence of the problem?	*Several teachers complained that the time they had spent teaching their students various jumprope games, hopscotch, tag, kickball, and so forth had been wasted since most children did not play games of this sort during free periods.*
e. What related problems may be alleviated if the problem is solved?	*Children's "competitive spirit" might be greater if structured games emphasizing competition were required during free periods. Teachers surveyed contend that opportunities for unstructured play and exercise during the school day prepare students to concentrate better on their academic studies when they return to the classroom.*
f. How soon is action on the problem required?	*The Committee for Constructive Play has announced that unless action is taken immediately, they will circulate a petition to all parents of elementary students demanding that free periods be suspended until more playground supervisors are hired.*

WORKSHEET 6

Judging the Validity of Problems

Problems	Valid	Valid Only in Part	Invalid	Validity Impossible to Determine from Information Available
Achievement in Basic Skills				
Career Information and Guidance				
Dropping Out of School				
Occupational Skills Training				
Student Dissatisfaction with Curriculum				
Bilingual Instruction				
Instrumental Music				
Playground Activity				

SUGGESTED RESPONSES FOR SECOND TEAM ACTIVITY

Judging the Validity of Problems

Problem and Validity Judgment	Rationale
ACHIEVEMENT IN BASIC SKILLS: Valid Only In Part	Apparently not all basic skills, but only reading and verbal ability are seriously deficient. Since average test scores of Black and Mexican-American 12th graders are more than two years below grade level, surely many students would not meet the State's 8th-grade proficiency standard for high school graduation. Students' mathematics skills, on the other hand, are not in jeopardy. The problem therefore appears to be Valid Only in Part. Based on all the information available, a better problem definition would be: Existing State: Many Black and Mexican-American students who on the average perform 20-32 months below grade level in reading comprehension and verbal ability by the end of high school, are being improperly placed in EH and EMR classes, failed in disproportionate numbers at all grade levels, and graduated without basic communication skills they need to qualify for jobs. Desired State: To prepare Black and Mexican-American students to meet the State's minimum proficiency standards for high school graduation, their reading and communication skills should be individually diagnosed, and their natural verbal facility developed through use of relevant curriculum methods and materials, beginning in the primary grades.
CAREER INFORMATION AND GUIDANCE: Validity is Impossible to Determine from Information Available	The information does not support a confident judgment as to the validity of this problem, so the most reasonable judgment is probably that Validity is Impossible to Determine From Information Available. While there have been numerous charges that vocational guidance needs improvement, some have come from sources outside the district and are not directly applicable to MCUSD, and none have cited evidence to confirm that MCUSD students are uninformed about job opportunities and training needs. The results of the follow-up questionnaire (CI-9) apply to students from high schools throughout Bay County and may not be equally true of former MCUSD students. Parents' opinions of how well informed their children are about career options and training needs would be useful for validating this problem, but only parents of gifted students were interviewed (CI-2), while the problem primarily affects non-college-bound students (24, CI-9). Furthermore, MCUSD's favorable student/counselor ratio (CI-5) and students' use of existing vocational guidance services (CI-10) indicate that the district has not totally neglected guidance services. Given this indefinite and conflicting information about existing conditions in MCUSD, it is probably best to reserve judgment about the problem's validity until reliable data can be gathered regarding students' knowledge of job trends, high need-occupations, training requirements, etc.

Problem and Validity Judgment	Rationale
DROPPING OUT OF SCHOOL: Invalid	Despite the consultant's alarming conclusions (20), the incidence of dropouts in MCUSD does not appear to be increasing as the consultant initially claimed and the 2% dropout rate is lower, in fact, than that in comparable districts (DO-6). The majority of dropouts are from Garfield High School (35), which may indicate a "significant instructional dilemma" for Garfield, but not necessarily for the district as a whole. In view of the Dropout Study Committee's conclusion that MCUSD's dropout rate is symptomatic of instructional deficiencies in the high school curriculum (DO-8), instead of attempting a head-on attack on the dropout problem, it should probably be considered as another factor relating to the problems of Achievement in Basic Skills, Career Information and Guidance, Occupational Skills Training, and Student Dissatisfaction with Curriculum. We felt the data failed to substantiate the existence of a significant discrepancy between existing and desired states regarding students dropping out of school and, therefore, concluded this problem was Invalid. If you concluded that the dropout problem was either Valid Only in Part, or that Validity was Impossible to Determine from Information Available, your judgment may be appropriate, but you should be able to explain the rationale for your judgment.
OCCUPATIONAL SKILLS TRAINING: Valid	The information that initially signalled this problem seems to indicate that the problem is Valid. That is, MCUSD's inattention to the needs of the large segment of non-college-bound students who attend its high schools for intensive, up-to-date job training is significantly discrepant from a revamped vocational training program, providing intensive skill development courses in high-need occupational fields and on-the-job work experience with local businesses and industries, that is needed.
STUDENT DISSATISFACTION WITH CURRICULUM: Valid	It is more difficult to assess the extent of the discrepancy between existing and desired states of affective student outcomes like this one than of students' knowledge or skills, because personal opinions are practically the only relevant data. However, the problem signals did convey considerable evidence of students' lack of interest in MCUSD's present social studies curriculum, and widespread belief that the present curriculum is not encompassing Black and Mexican-American studies nor emphasizing acquisition of problem-solving skills to help students deal with contemporary social problems. No substantial opposition to this point of view was expressed. We have therefore concluded that the problem is a Valid one.

Problem and Validity Judgment	Rationale
BILINGUAL INSTRUCTION: Valid Only in Part	Apparently the need to help Black children develop reading and writing skills in the language that is most familiar to them has been recognized and the Black Language Curriculum Workshop has initiated an effective solution. However, there is no evidence of special curriculum materials for Spanish-speaking students being used throughout the district. The remedial reading classes emphasize standard English, and there are only four Spanish-speaking and no Oriental teacher aides available to assist children in these classes. The needs of the District's Spanish-speaking and Oriental elementary students for instruction in their native language are obviously not being met. The problem therefore appears to be Valid Only in Part. Black students should be eliminated from the problem definition as an affected group; the problem might then be redefined as follows: Existing State: Primary students whose spoken language is other than standard English (with the exception of Black students) are not learning to read and write their spoken language well because they receive instruction only in standard English. Desired State: In the primary grades, all MCUSD students whose spoken language is other than standard English should develop language skills in their spoken language as well as in standard English.
INSTRUMENTAL MUSIC: Valid	According to the information available, this problem appears to be Valid. That is, many elementary children who want to learn to play musical instruments do not get the opportunity because they don't have instruments. Although the problem primarily affects the district's three racially unbalanced elementary schools where children from low income families are concentrated, it is still an appropriate district-level concern, because the remedy may call for a change in district policy and/or budget.
PLAYGROUND ACTIVITY: Invalid	The information collected tends to invalidate both the existing and desired states that were defined for this problem. Those objecting to the "violence" of children's play do not appear to be perceiving the existing situation accurately. While there is evidence that children are noisy and boisterous during play periods, the incidence of fights or other destructive behavior among elementary students is low. A more sedate playground atmosphere appears to be desired by only a minority of the MCUSD community. The majority of both parents and teachers oppose structuring children's playtime into organized games, especially those of a competitive nature. We therefore conclude that this problem is Invalid for MCUSD.

Module Six

IF THEY ARE VALID, HOW SERIOUS ARE THE PROBLEMS?

Overview

In Module Five you judged the validity of several problems. In this module you will complete the process of analyzing problems by judging the seriousness of those problems that were judged to be either valid or valid in part. You will review six factors, or criteria, that make certain problems more serious than others. You will judge systematically the relative seriousness of several problems, by comparing information about each problem pertinent to the several criteria that determine the seriousness of problems.

By the time you complete this module, you should be able to:

1. Identify criteria that are useful for judging the seriousness of problems.

2. Explain why gathering information pertinent to each criterion makes it easier to judge the overall seriousness of problems.

3. Judge the relative seriousness of several problems, given appropriate information to make such judgments.

I. Criteria that Determine Seriousness of Problems

At any one time an instructional planner is probably aware of a number of valid problems in his school district. Obviously problems compete not only for attention, but also for the resources available to solve them. How does the instructional planner decide which problems he should pay attention to and/or which ones he should spend his resources on? He should have some means of comparing the relative seriousness of all the problems he is facing. Then he can attend to, and commit district resources to, those problems that prove to be of the greatest seriousness for his district.

As an exmaple, let us suppose that these two problems are being compared in terms of their seriousness:

Problem A: Students are not developing adequate occupational skills; they should receive better vocational training.

Evidence of Seriousness: Seventy percent of all parents in our district feel that high school students have not received adequate job preparation by the time they graduate.

Problem B: Students are not knowledgeable about human reproduction and sexual behavior; they need to receive instruction concerning sex and family life.

Evidence of Seriousness: The School Board has recommended implementation of a comprehensive sex and family life education program within the next six months.

Which of these problems is more serious? An answer based on a comparison of the limited information given would be quite questionable. It is like comparing apples and bananas. For Problem A, you have information about the importance of the problem to a school-related group, the parents. For Problem B, the information available concerns requirements for taking action on the problem. Now let us suppose information is available about both these aspects of seriousness for both these problems:

Problem A: Students are not developing adequate occupational skills; they should receive better vocational training.

Evidence of Seriousness:

1. Seventy percent of all parents in our district feel that high school students have not received adequate job preparation by the time they graduate.

2. The School Board has made no special recommendations concerning the district's vocational education program. However, federal funds for implementing a new or expanded program might be secured if a proposal is submitted within the next three months.

Problem B: Students are not knowledgeable about human reproduction and sexual behavior; they need to receive instruction concerning sex and family life.

Evidence of Seriousness:

1. Fifty-five percent of the respondents to a parent questionnaire regarded sex and family life education as a "critical" need in our school district. Another thirty percent of the respondents regarded it as a "major" need.

2. The School Board has recommended implementation of a comprehensive sex and family life education program within the next six months.

On the basis of this additional information, which of the two problems do you think is more serious? Your decision still involves a good deal of subjective judgment, but it should be a more confident decision because you now have information for each of the problems about two factors that contribute to judgments of seriousness. The more comparable your information about problems, the more confidently you can judge the relative seriousness.

For each problem you are analyzing, try to gather information about several different criteria that may contribute to the seriousness of the problem. You probably have your own ideas about what factors make certain problems especially serious for schools. Here are the six criteria that were suggested earlier for judging the relative seriousness of problems:

1. HOW LARGE IS THE DISCREPANCY BETWEEN THE EXISTING AND DESIRED STATES?

2. WHAT PROPORTION OR NUMBER OF STUDENTS, OR OF PARTICULAR GROUPS OF STUDENTS, IS AFFECTED BY THE PROBLEM?

3. HOW IMPORTANT IS THE PROBLEM TO SCHOOL-RELATED GROUPS?

4. WHAT ARE THE FINANCIAL COSTS OF THE EXISTENCE OF THE PROBLEM?

5. WHAT RELATED PROBLEMS MIGHT BE ALLEVIATED IF THE PROBLEM IS SOLVED, OR AGGRAVATED IF THE PROBLEM REMAINS UNSOLVED?

6. HOW SOON IS ACTION ON THE PROBLEM REQUIRED?

These criteria were discussed in Module Three as factors to consider in determining what information is needed to analyze fully the seriousness of problems. (You may want to review the discussion on pages 99-103).

Using a set of established criteria as a means of comparing the relative seriousness of problems will help you in a number of ways. It will help you to organize the information you have about each problem, determine what additional information you need before a judgment of seriousness can be confidently made, and compare the relative seriousness of problems that are very dissimilar in nature. Of course, for some problems you may not be able to get information pertinent to every criterion, even if you feel it is desirable to do so. However, the more complete your information is about all these criteria, the more confident you can be in your judgments of the relative seriousness of different problems.

II. Judging the Relative Seriousness of Problems

You may not consider all the criteria that determine seriousness of problems equally important. Individuals may have personal or professional biases that lead them to attach greater importance to certain criteria. You may feel, for example, that no matter what other evidence is available, the greater the number of students to whom a given problem applies, the more serious it is; or that the greater the importance that members of school-related groups assign to a given problem, the more serious it is. If you do consider certain criteria more important than others, you will probably weight information that pertains to those criteria more heavily when you judge the seriousness of problems.

The differential weights that you assign to the various criteria need not necessarily be considered everlasting. External factors may periodically influence you to perceive the relative importance of the criteria differently. For instance, if your district's budget has been cut or is extremely tight, you may feel obliged to weight information that pertains to "financial costs of the existence of the problem" more heavily than other information about your district's problems. Or, if your district has come under attack for failing to foster good school-community relations, you may wish to stem further hard feelings by making your judgments as to which problems are most serious for the district primarily according to "the importance of the problems to school-related groups." You may also perceive the relative importance of the various criteria to vary depending on the particular problems being analyzed.

If you systematically gather information that pertains to a number of different criteria against which the seriousness of problems can be judged, decide how serious particular problems are according to each criterion, and combine your separate ratings into an overall judgment of seriousness, your confidence in the priorities you assign to problems should be enhanced considerably. You will be able to justify the priorities you set to others because you have based them on comparisons of problems, often very different in nature, against the same set of standards.

Self-Test for Module Six

This self-test will help you evaluate your understanding of the concepts presented in Module Six. After you have completed all the items, refer to the suggested responses on pages 243-244.

1. In judging the seriousness of valid student outcome problems, which six of the following do you most need information about? (Check them.)

   _____ a. financial cost of solving the problem

   _____ b. importance of the problem to school-related groups

   _____ c. potential causes of the problem

   _____ d. proportion or group of students affected

   _____ e. financial cost of the existence of the problem

   _____ f. alternative solutions to the problem

   _____ g. size of discrepancy between existing and desired states

   _____ h. other problems that may be alleviated if the problem is solved

   _____ i. how soon action is required.

2. Give at least one reason why it is necessary to determine the seriousness of a problem BEFORE seeking solutions to it.

Suggested Responses

for Module Six Self-Test

Please do not look at the Suggested Responses until you have attempted all the items on the Self-Test.

1. In judging the seriousness of valid student outcome problems, which <u>six</u> of the following do you most need information about? (Check them.)

   ____ a. financial cost of solving the problem

   __✓__ b. importance of the problem to school-related groups

   ____ c. potential causes of the problem

   __✓__ d. proportion or group of students affected

   __✓__ e. financial cost of the existence of the problem

   ____ f. alternative solutions to the problem

   __✓__ g. size of discrepancy between existing and desired states

   __✓__ h. other problems that may be alleviated if the problem is solved

   __✓__ i. how soon action is required.

2. Give at least <u>one</u> reason why it is necessary to determine the seriousness of a problem BEFORE seeking solutions to it.

   Some possible reasons:

   a. *It helps you to recognize what additional information, if any, you need about the problem before deciding on a solution.*

   b. *The most serious problems are the ones which the school should attempt to solve first.*

   c. *It is easier to compare the relative seriousness of very different problems if you judge them against the same set of criteria.*

MCUSD NEWS

PLANNING TEAM ASKED TO RECOMMEND PRIORITIES FOR DISTRICT ACTION

March. _The Instructional Planning Team has reported to Superintendent Redford and the Board of Education its findings that five of the instructional problems being analyzed have been proved valid in MCUSD: Achievement in Basic Skills, Occupational Skills Training, Student Dissatisfaction with Curriculum, Bilingual Instruction, and Instrumental Music.

The Superintendent praised the IPT for validating the problems rather than assuming that all alleged problems require solutions, but demanded that priorities be set among the validated problems. He explained that the District's resources, already heavily overburdened, cannot be stretched to accommodate attacks on all its problems. "New funds will not be authorized for the solution of any instructional problem unless some proof is given that it ranks among the District's most serious problems."

Superintendent Redford requested that the IPT submit a memorandum to him by the end of the week indicating their priorities for District action on the five problems, and their rationale for the priorities set. "The conclusions drawn from the systematic analysis you've performed," he said, "will help us tremendously to ensure that resources are allocated for solving MCUSD's most pressing problems."

INSTRUCTIONS FOR INDIVIDUAL ACTIVITY

Judging the Seriousness of Problems

Until now, you have made decisions as a team at each step in the process of analyzing problems. Since there may be differences of opinion at this final step which must be resolved before a team consensus can be reached, first individually judge the relative seriousness of the problems. Refer to the information summaries for the five problems that have been validated in MCUSD: ACHIEVEMENT IN BASIC SKILLS, OCCUPATIONAL SKILLS TRAINING, STUDENT DISSATISFACTION WITH CURRICULUM, BILINGUAL INSTRUCTION and INSTRUMENTAL MUSIC. Complete Worksheet 7 on the next page by following these steps:

1. First, consider the first criterion listed on the worksheet, "a. How large is the discrepancy between the existing and desired states?" Review the information pertinent to that criterion on the information summary for each of the five problems. Assuming this was all you knew about the problems, decide how serious each problem is in relation to the others. Assign ranks of 1 (most serious) to 5 (least serious) to each of the problems, and write the numbers in the appropriate spaces opposite criterion a on the worksheet. Ties are acceptable.

2. Now compare the information summarized about the problems for each of the remaining criteria. In each case, rank the relative seriousness of the five problems, assuming that the information summarized for each criterion is all you have on which to base your ranks.

3. Look over all the ranks you assigned to each problem, and decide how you would rank the five problems in terms of their overall seriousness. (A simple way is to add up the ranks in each column, and assign rank 1 to the lowest score, rank 2 to the second lowest score, etc.) Write in your ranks in the appropriate spaces opposite "Overall Seriousness Ranking" on the worksheet.

4. Be prepared to explain to the other members of your team how you arrived at your ranking, that is, what information you used to make your judgments.

WHEN YOU HAVE COMPLETED THE WORKSHEET, WAIT UNTIL THE OTHER MEMBERS OF YOUR TEAM HAVE ALSO FINISHED. THEN AS A TEAM, REVIEW THE INSTRUCTIONS FOR THE NEXT ACTIVITY ON PAGE 251.

WORKSHEET 7

Judging the Seriousness of Problems

Team _____

Criteria of Seriousness	ACHIEVEMENT IN BASIC SKILLS	OCCUPATIONAL SKILLS TRAINING	STUDENT DISSATISFACTION WITH CURRICULUM	BILINGUAL INSTRUCTION	INSTRUMENTAL MUSIC
a. How large is the discrepancy between the existing and desired states?					
b. What proportion or group of students is affected by the problem?					
c. How important is the problem to school-related groups?					
d. What are the financial costs of the existence of the problem?					
e. What related problems may be alleviated if the problem is solved?					
f. How soon is action on the problem required?					
Overall Seriousness Ranking					

INSTRUCTIONS FOR TEAM ACTIVITY

Judging the Seriousness of Problems

Your next task is to get together with the other members of your team and arrive at a team consensus on the relative seriousness of the five problems. To fill out another worksheet representing your judgments as a team:

1. Compare the ranks each team member assigned to the five problems. You will probably notice some disagreements. A decision-making process like this can never be made totally objective. Even though you had the same information about each problem and used the same criteria to judge their seriousness, you can see that your decisions were still, to some degree, subjective. How "serious" a given item of information indicates a problem to be is partly a matter of opinion. Also, each of you may weight the relative importance of each of the six criteria of seriousness somewhat differently.

2. Rank the relative seriousness of the five problems as a team. Wherever there are differences of opinion, each team member should try to explain how he decided on his ranks. Those who can most persuasively explain their rankings may be able to convince the others to accept their rankings; or you may want to try to compute average ranks for the team as a whole; or, if all else fails, you can simply let the majority rule.

3. Record the team's decisions on a separate copy of Worksheet 7. You will find additional copies on the next page.

WHEN YOU HAVE COMPLETED RANKING THE PROBLEMS, TURN TO PAGE 255 AND REVIEW THE INSTRUCTIONS FOR THE FINAL ACTIVITY.

WORKSHEET 7

Judging the Seriousness of Problems

Team _____

Criteria of Seriousness	ACHIEVEMENT IN BASIC SKILLS	OCCUPATIONAL SKILLS TRAINING	STUDENT DISSATISFACTION WITH CURRICULUM	BILINGUAL INSTRUCTION	INSTRUMENTAL MUSIC
a. How large is the discrepancy between the existing and desired states?					
b. What proportion or group of students is affected by the problem?					
c. How important is the problem to school-related groups?					
d. What are the financial costs of the existence of the problem?					
e. What related problems may be alleviated if the problem is solved?					
f. How soon is action on the problem required?					
Overall Seriousness Ranking					

INSTRUCTIONS FOR FINAL ACTIVITY

Judging the Seriousness of Problems

Now that you have completed your analysis of MCUSD's problems, your team should prepare a memorandum to Superintendent Redford, informing him of the results of your analysis and of the priorities for district action that you are recommending. Use the memo form provided on the next page. The memo should cover the following points:

1. What do you see as the priorities for district action on these problems and your rationale for recommending them?

2. What is the overall process you used to reach those conclusions?

Do not feel that you must include in the memo every step your team went through, nor every bit of information you used in making your decisions--summarize the process you went through and the rationale behind the priorities you set.

When you have completed writing your memorandum, wait for instructions from the coordinator. Be prepared to exchange your team's memorandum with another team, and to evaluate another team's memo by completing the Evaluation Sheet on page 259.

MID CITY UNIFIED SCHOOL DISTRICT

INTER-OFFICE MEMORANDUM

To: Superintendent Redford

From: Instructional Planning Team

Subject: Priorities for District Action on Instructional Problems

Memorandum
Written by Team_____

Memorandum
Evaluated by Team_____

Evaluation Sheet

Obtain another team's memorandum to Superintendent Redford. Indicate in the upper left-hand corner of this Evaluation Sheet which team's memo you are evaluating and, in the upper right-hand corner, your own team identification.

As a team, review the memorandum, and then write brief answers to each of the following questions. Return the memo and this Evaluation Sheet to the appropriate team when you are finished and be prepared to discuss your evaluation with them, if they wish.

1. ARE THE PRIORITIES SET FOR DISTRICT ACTION REASONABLE IN TERMS OF THE RATIONALE PROVIDED?

2. DOES THE MEMO PROVIDE A CLEAR IDEA OF THE PROCESS THAT THE OTHER TEAM WENT THROUGH IN REACHING ITS CONCLUSIONS?

The FAR WEST LABOROATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT is a public non-profit organization located in the San Francisco Bay Area and supported in part by the Department of Health, Education, and Welfare.

The Laboratory's goal is to contribute to the improvement of educational practices. Through **educational development** activities, a staff of 250 works to **help children have more and better opportunities to learn.**

Educational development is a new discipline. It involves, first, focusing on an important but specific area in need of improvement and then inventing, field testing, and validating a generally useful solution to that problem or need. The solution may be a new self-contained product or an alternative process or system to be used by educators, by students, by parents, or by all of them together.

The Laboratory now has five major developmental divisions. Division I, directed by Dr. Ned A. Flanders, develops products and procedures that will result in more effective **teaching.** Division II, directed by Dr. Paul Hood, develops new instructional and training **systems;** for example, it is testing an employer-based career education model. Division III, directed by Dr. Glen Nimnicht, develops methods and materials that are **responsive** to the needs and interests of very young children. Division IV, directed by Dr. James Johnson, is investigating the problems of renewing **home-school linkage** so as to improve educational practice. Division V, directed by Dr. Larry Hutchins, develops ways and means of facilitating installation and **utilization** of educational innovations.

All Laboratory products undergo a rigorous research and development cycle prior to release for reproduction and distribution by other agencies. At least three phases of field testing—work with a prototype, a supervised performance field test, and an operational test under normal user conditions without Laboratory participation—precede formal external review and an official decision on acceptability. In view of this thorough evaluation, those who adopt Laboratory products and processes can know with certainty the kind of outcomes they can anticipate in their own educational setting.

The work of the Laboratory is governed by a Board of Directors appointed by the major educational agencies in the states of California, Nevada, and Utah.

John K. Hemphill
Laboratory Director

* GPO 793-597